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DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
Katsuro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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FIG. 1A

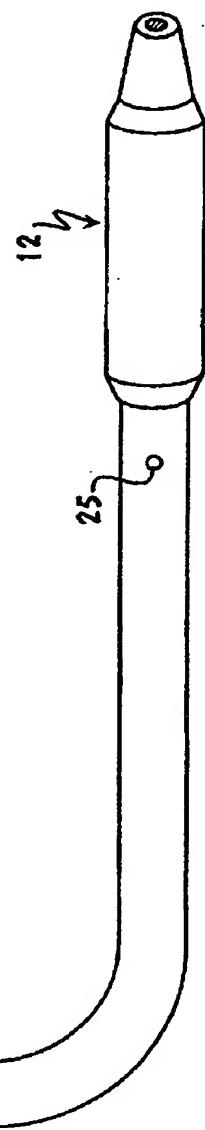
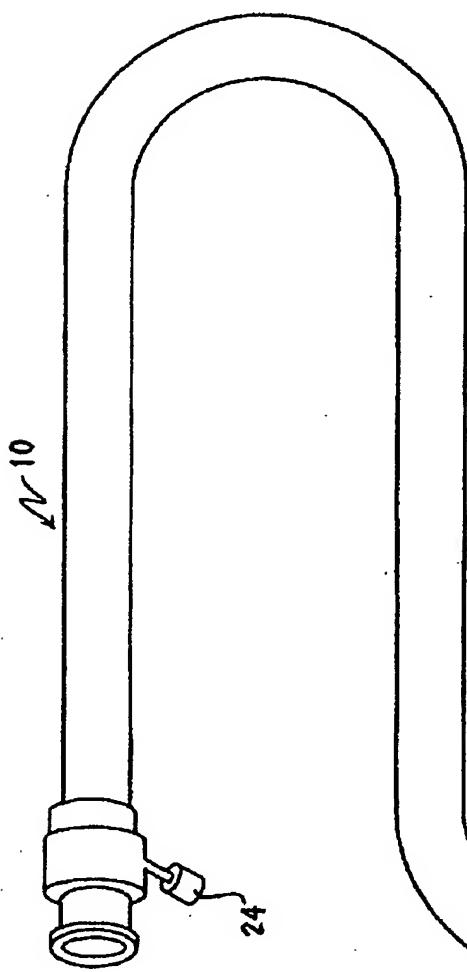


FIG. 1B

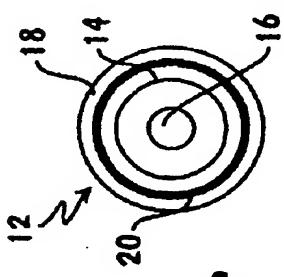
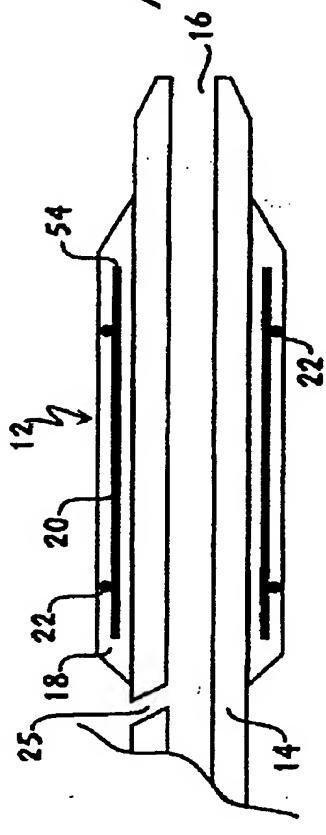


FIG. 1C

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
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FIG. 2A

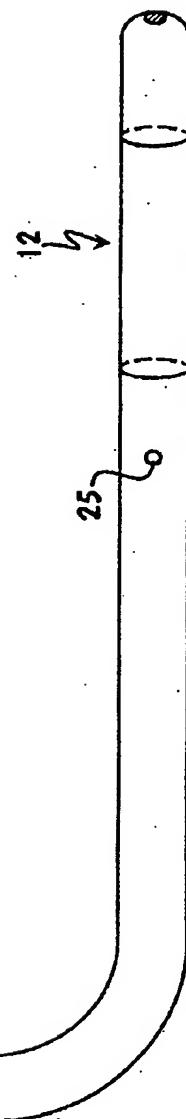
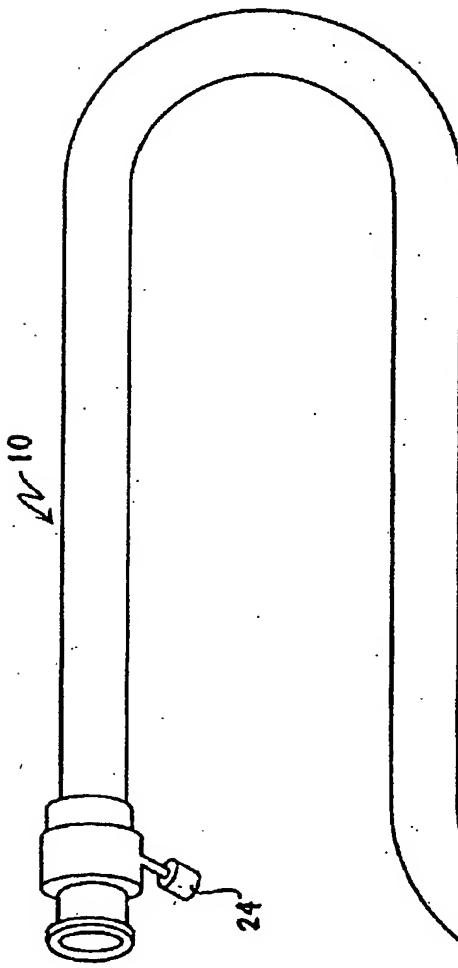


FIG. 2B

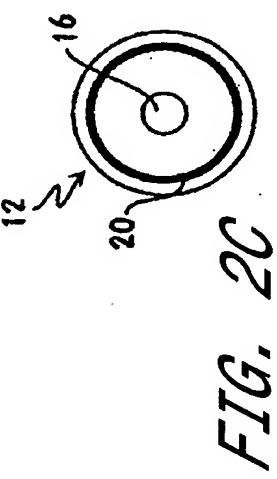
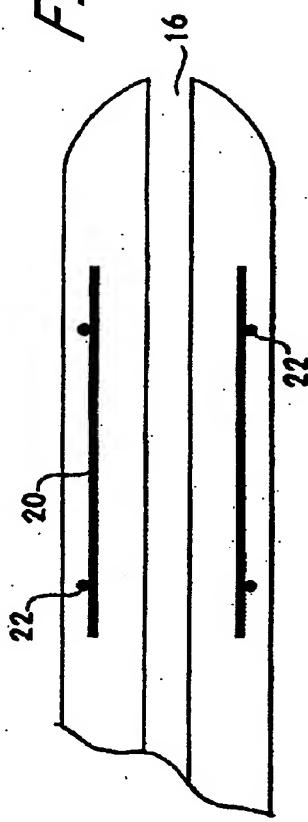


FIG. 2C

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
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FIG. 3A

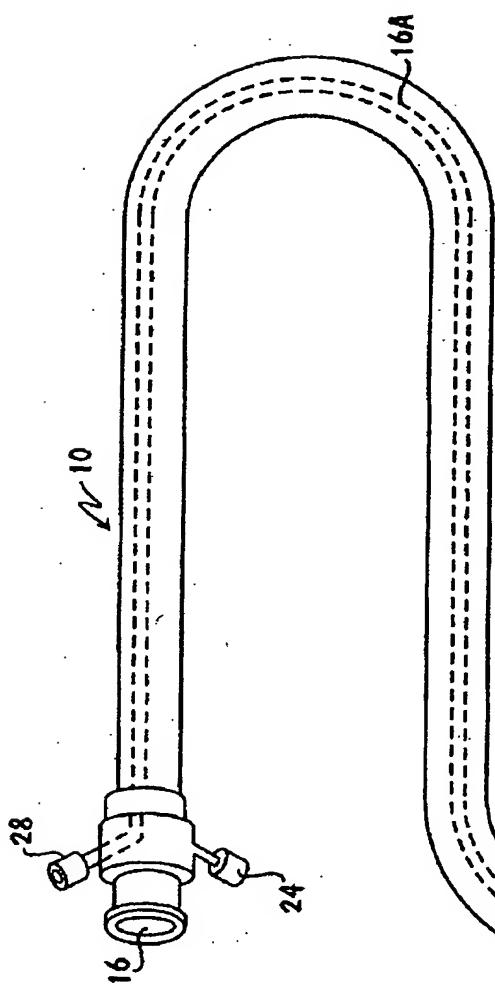
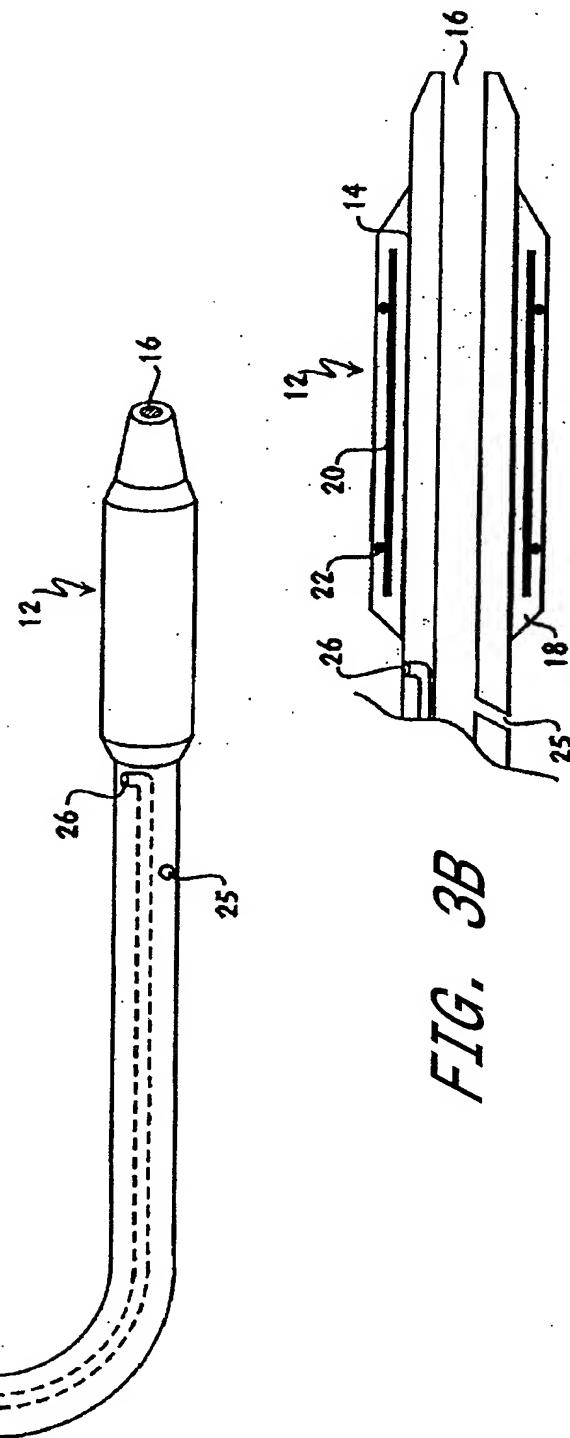


FIG. 3B



DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
Katsuro Tachibana et al.
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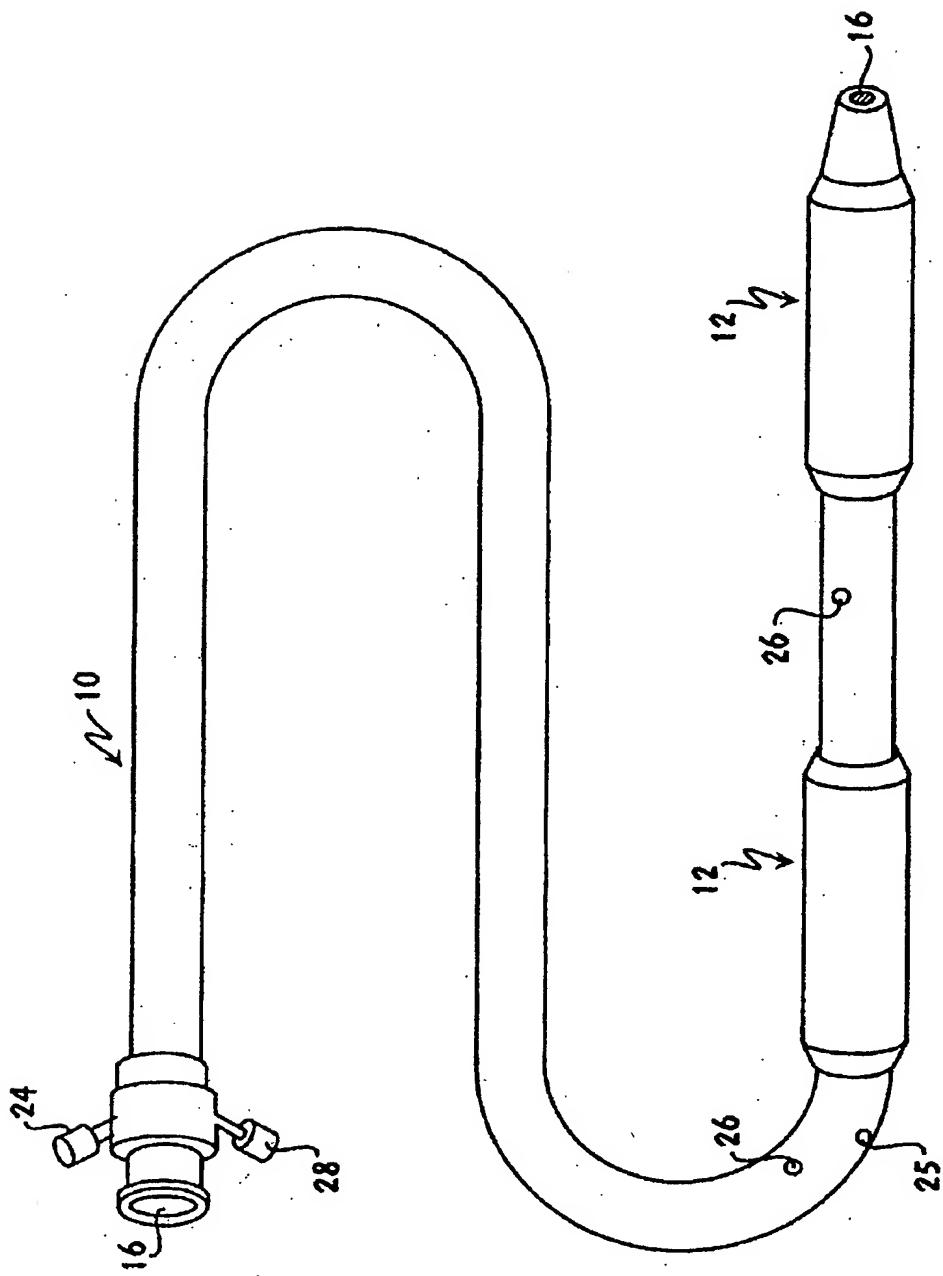


FIG. 4A

FIG. 4C

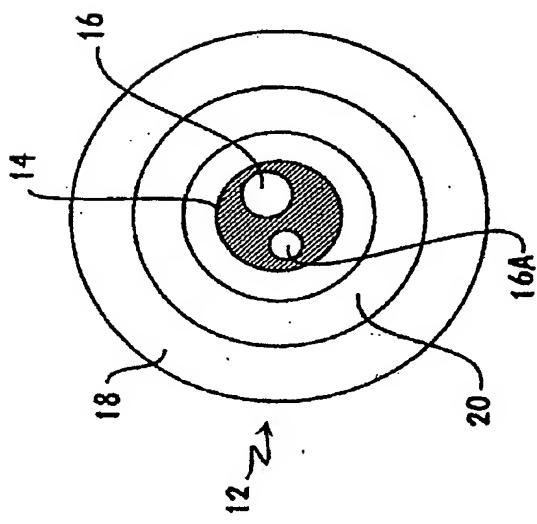
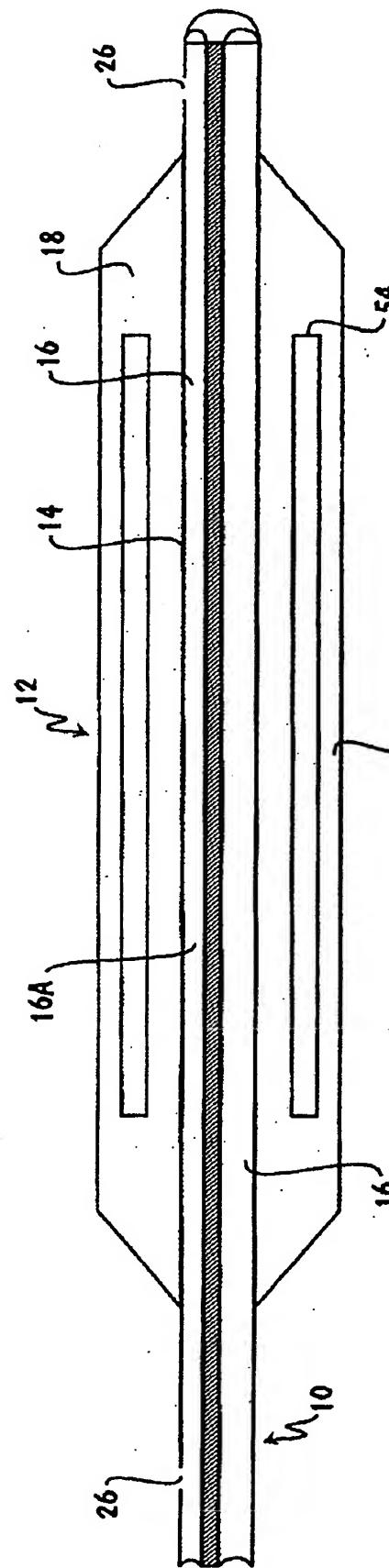


FIG. 4B



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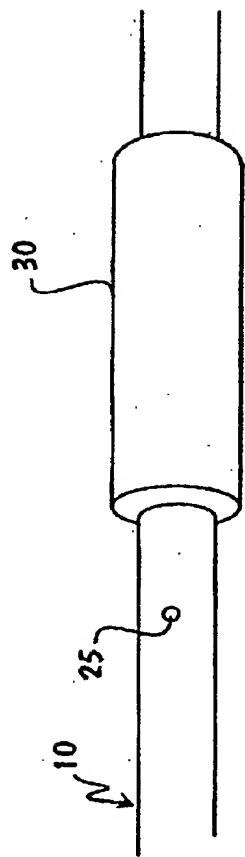


FIG. 5A

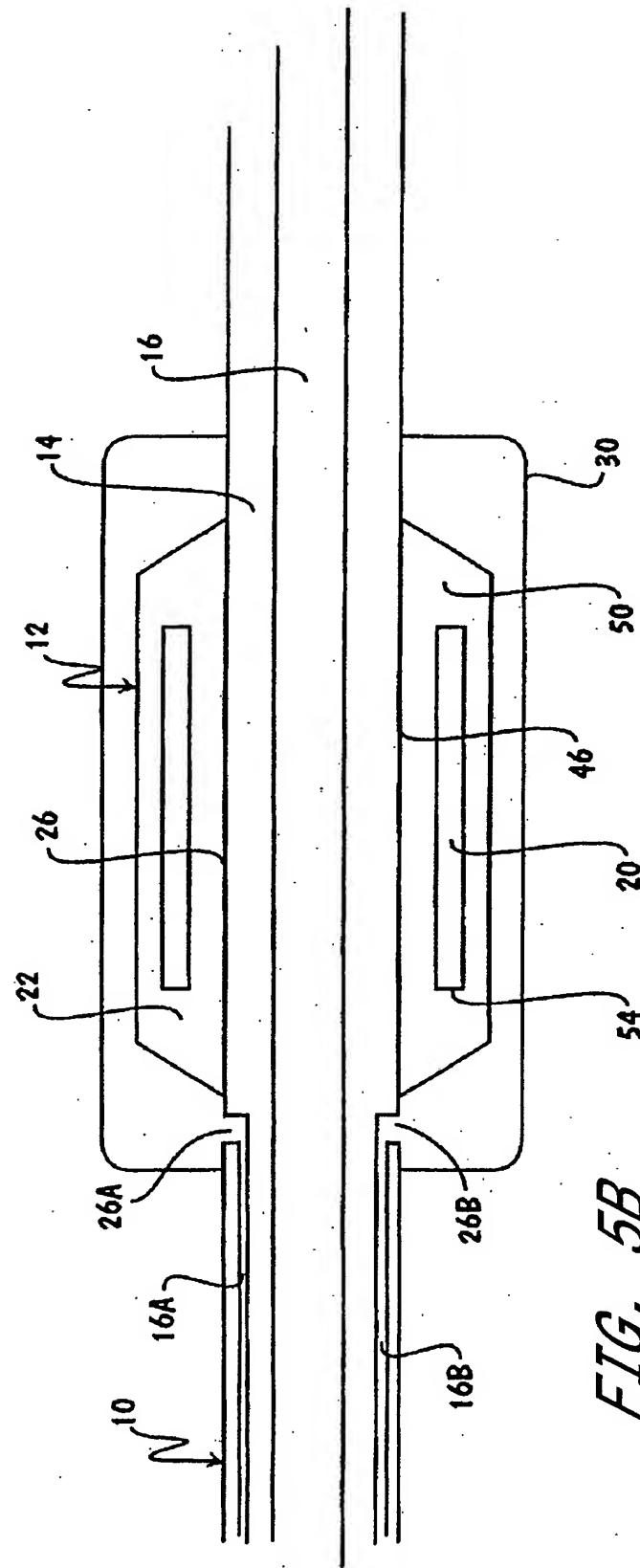
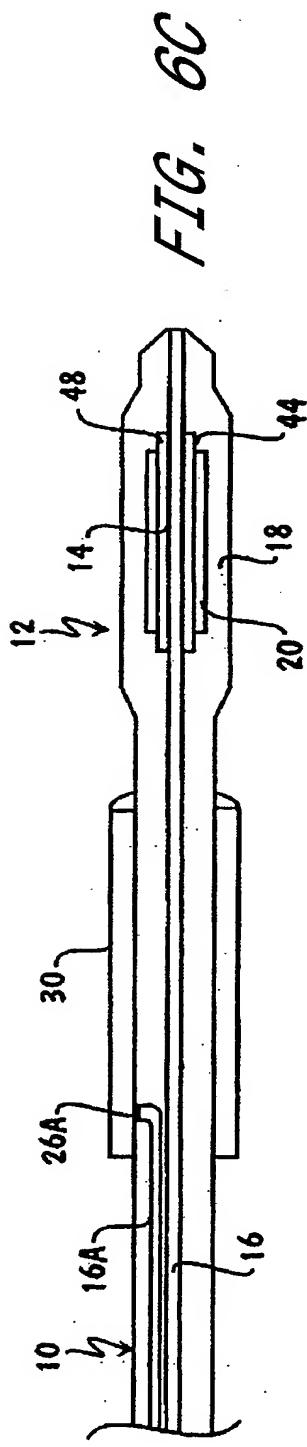
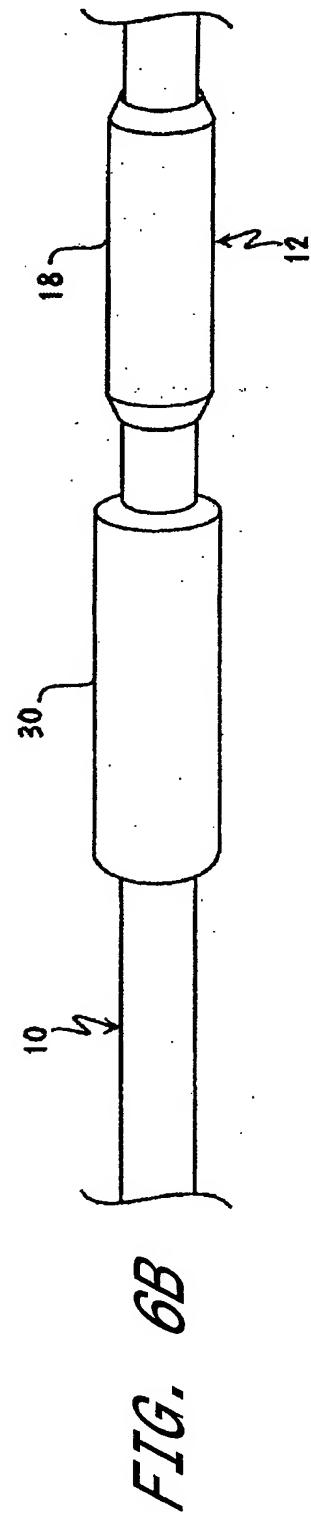
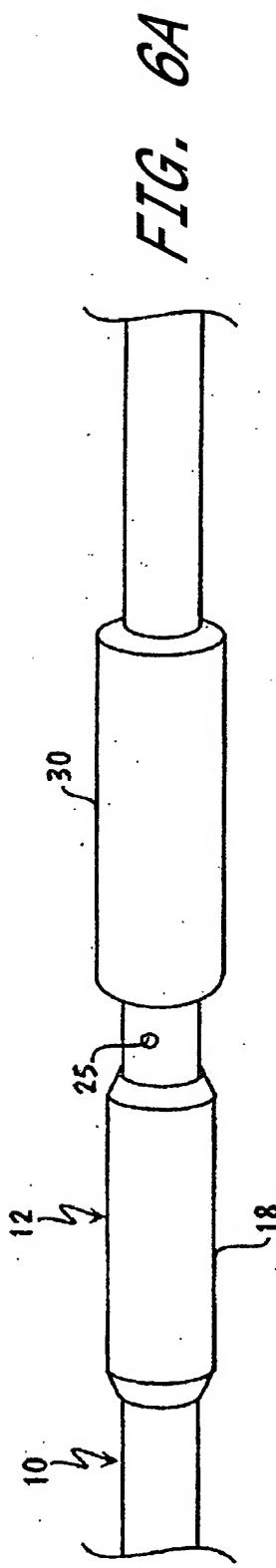


FIG. 5B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
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DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
Katsuro Tachibana et al.
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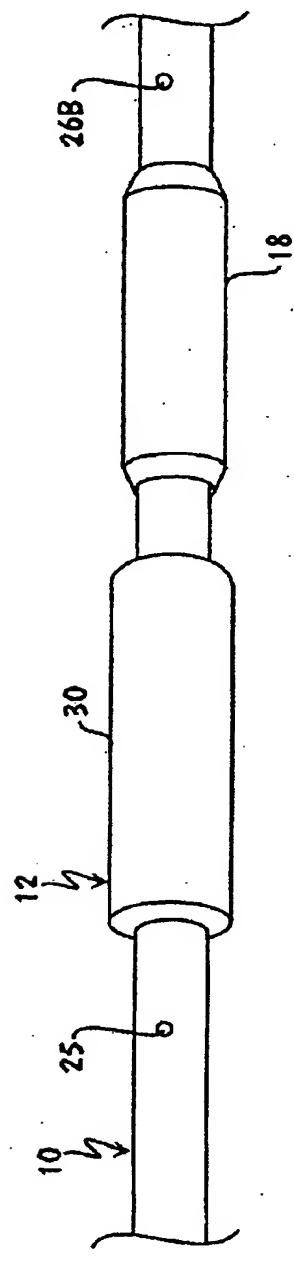
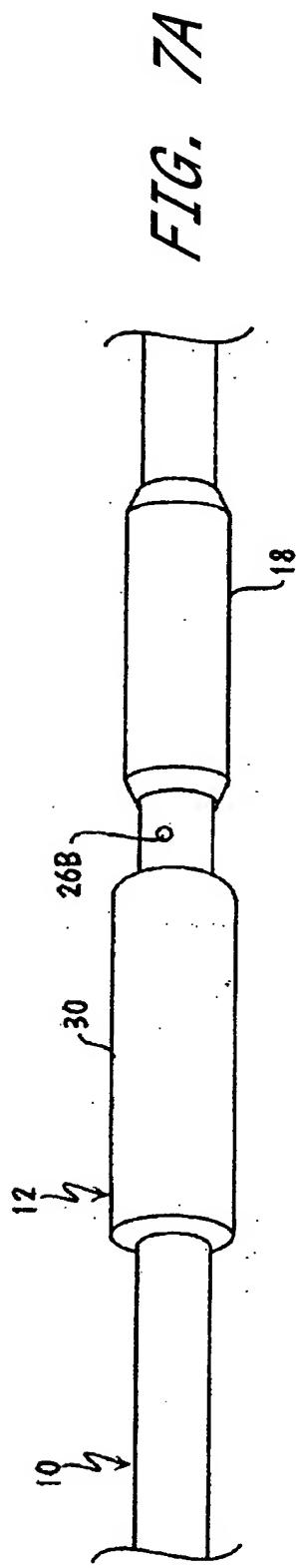
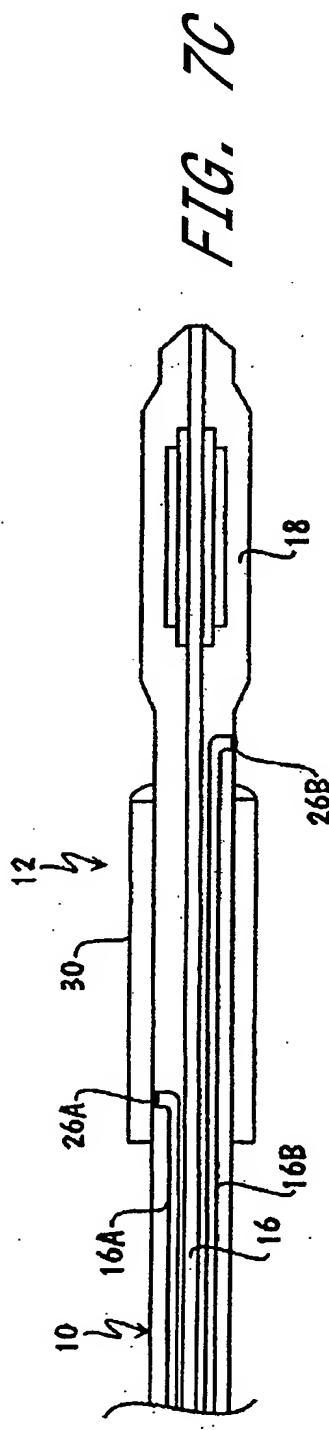


FIG. 7B



DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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FIG. 8A

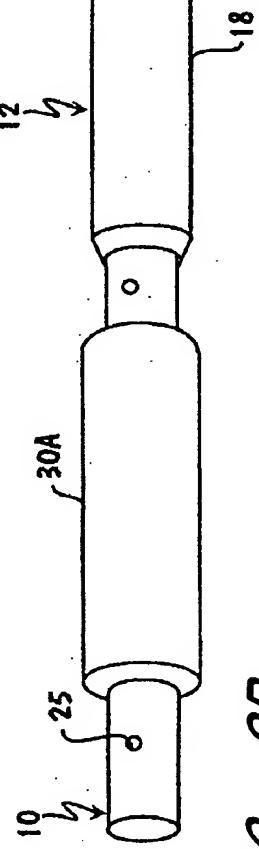
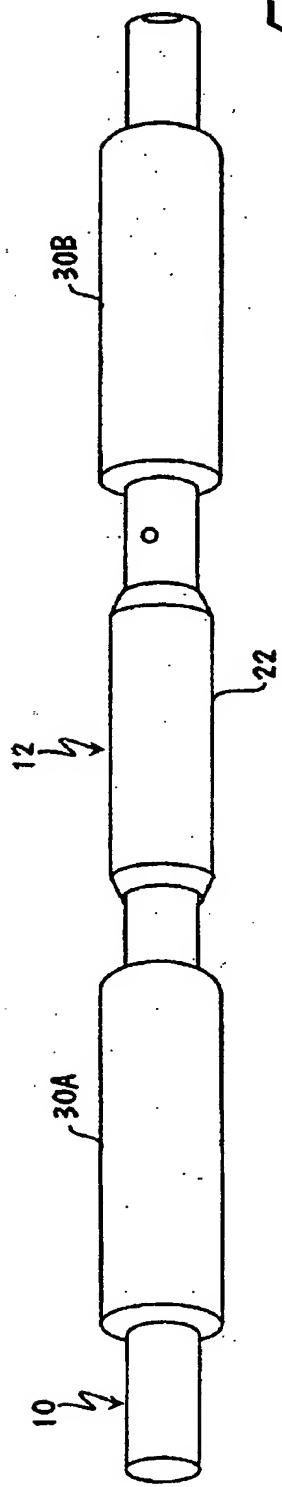


FIG. 8B

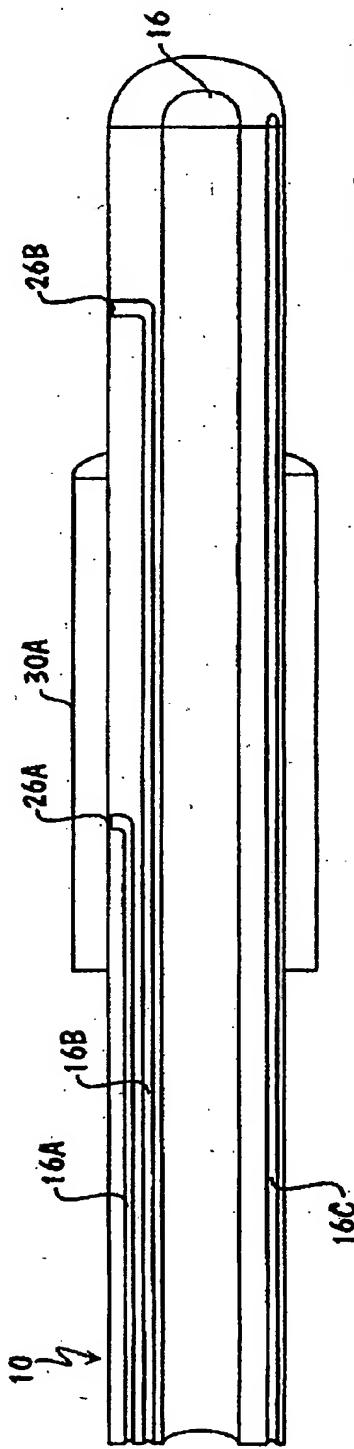


FIG. 8C

*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*
Katsuro Tachibana et al.
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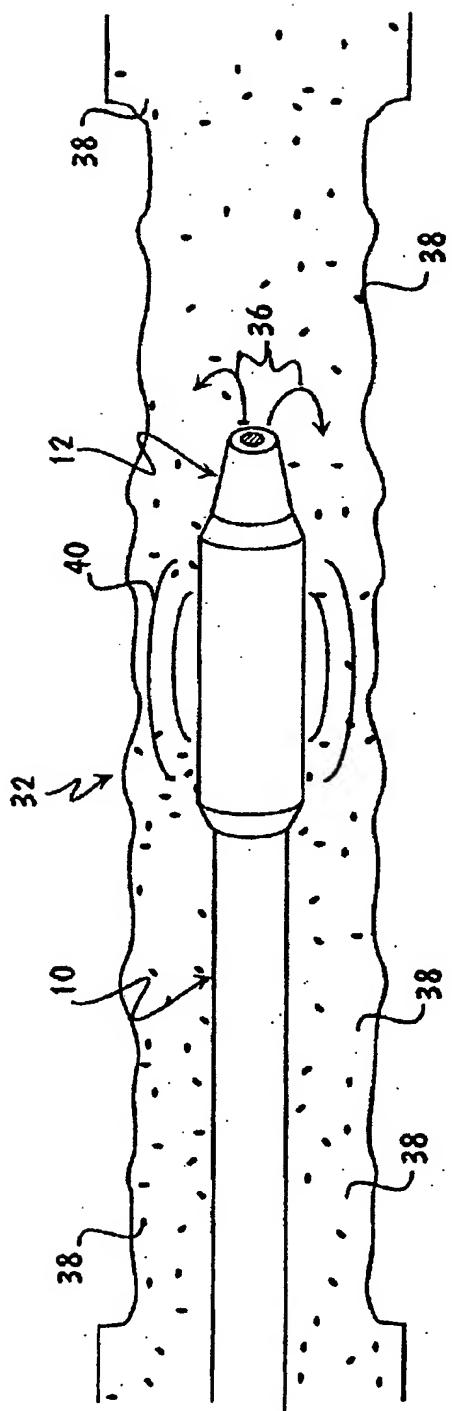


FIG. 9A

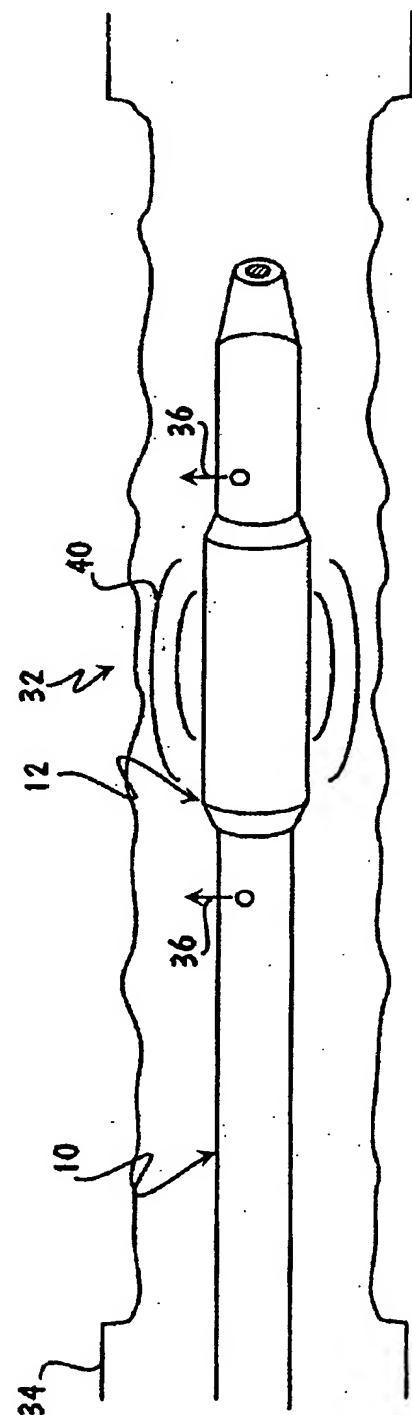


FIG. 9B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

Katsuro Tachibana et al.
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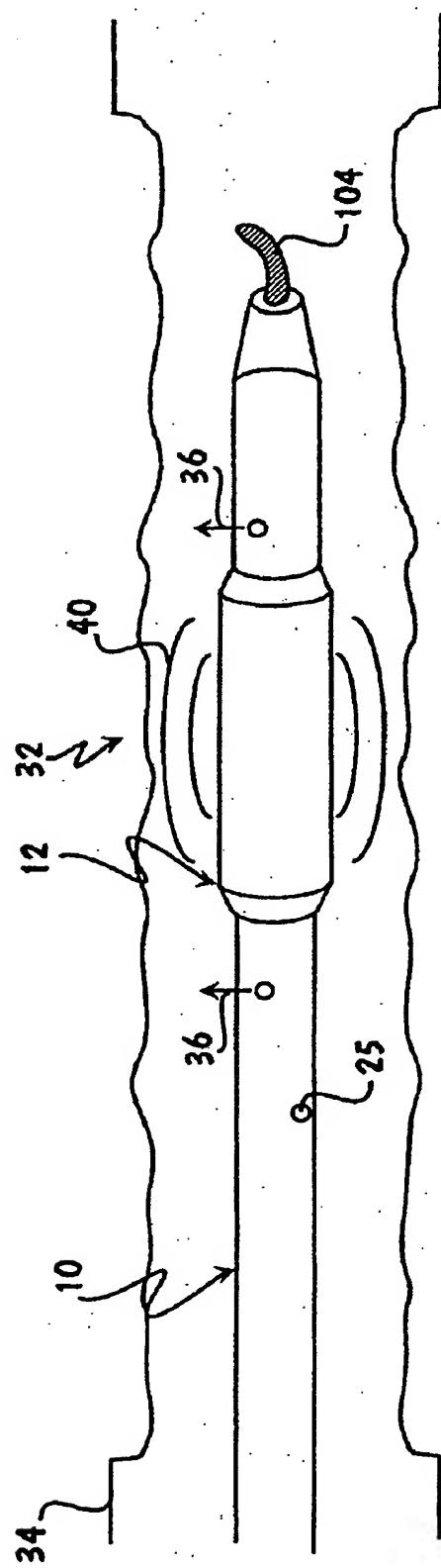


FIG. 9C

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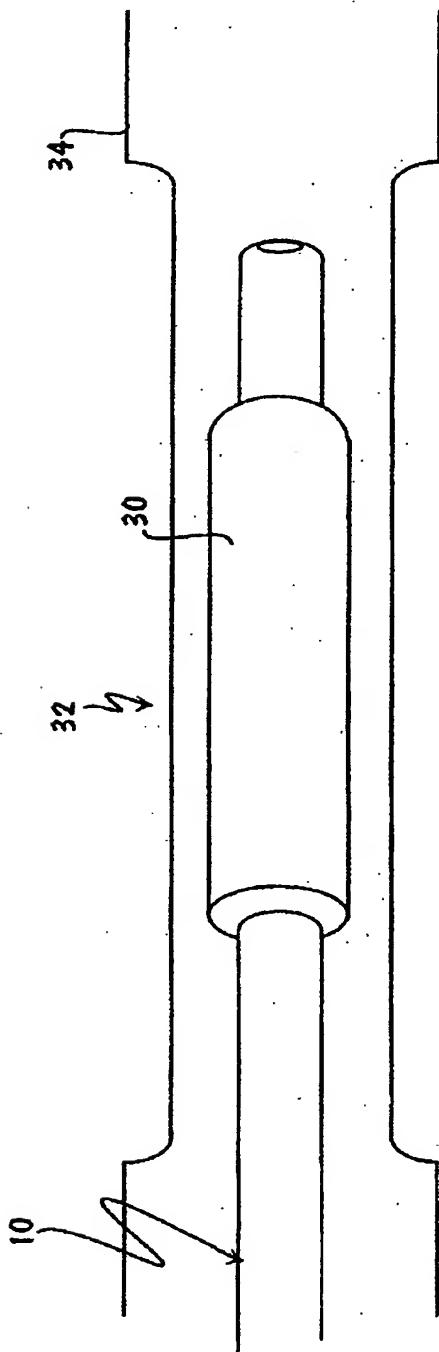


FIG. 9D

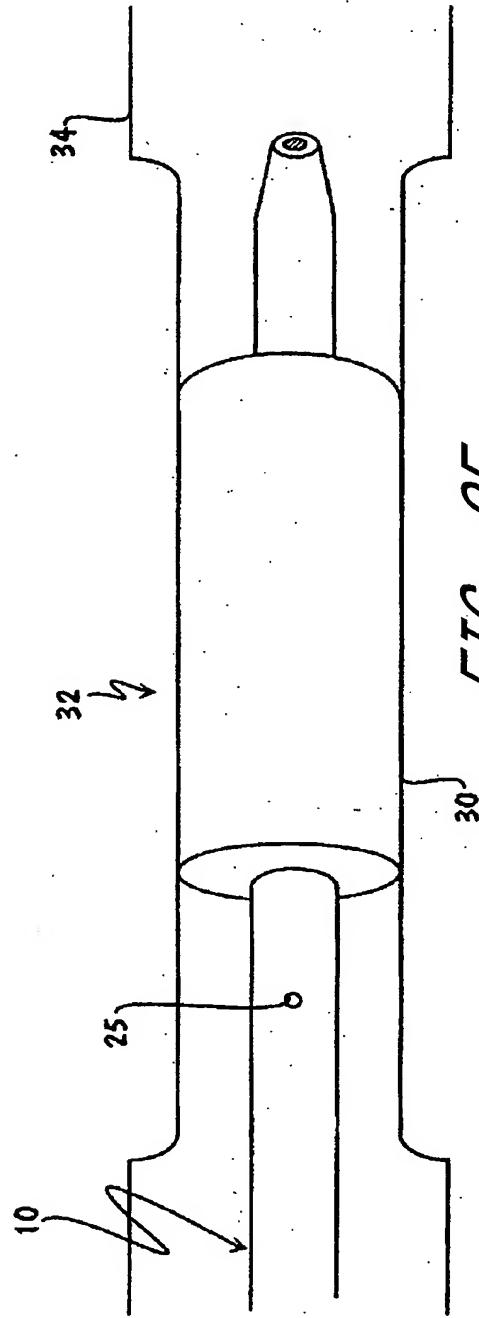
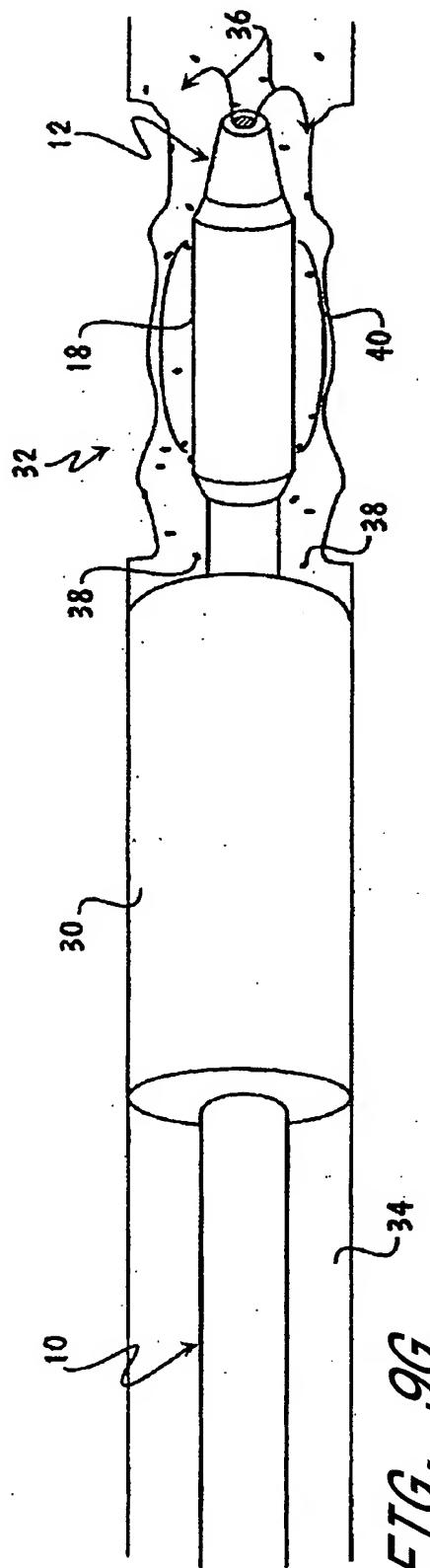
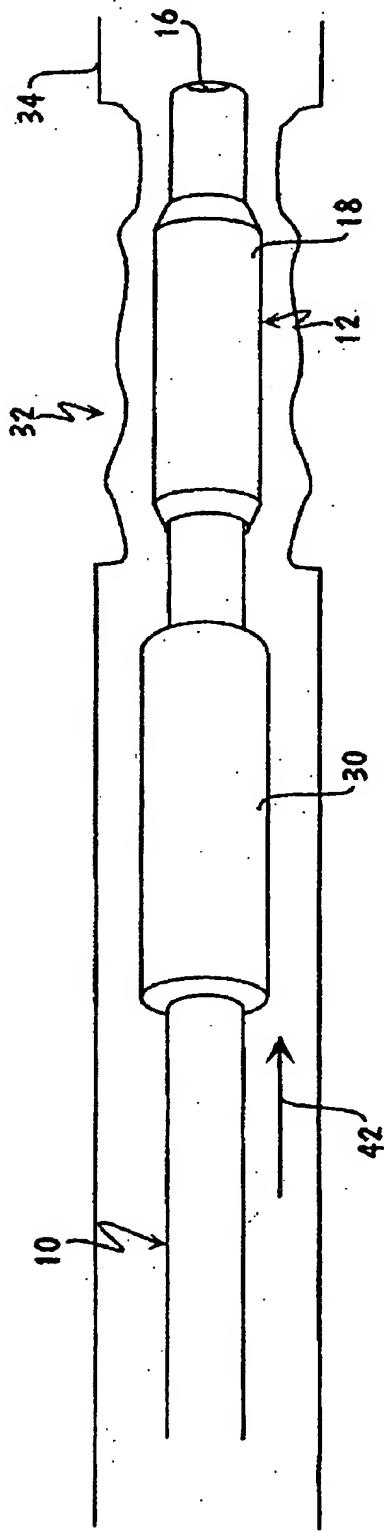


FIG. 9E

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

Katsuro Tachibana et al.
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DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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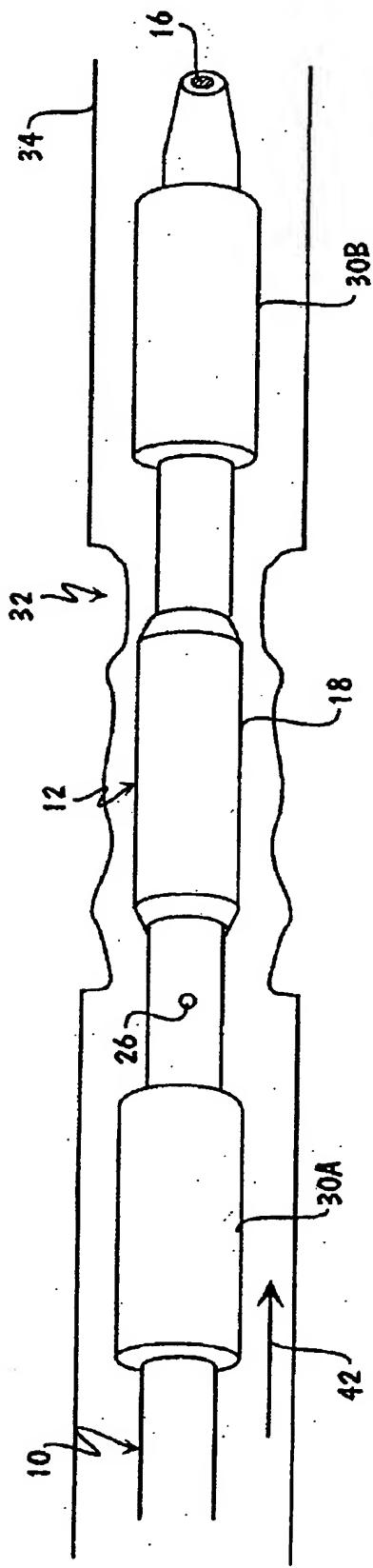


FIG. 9H

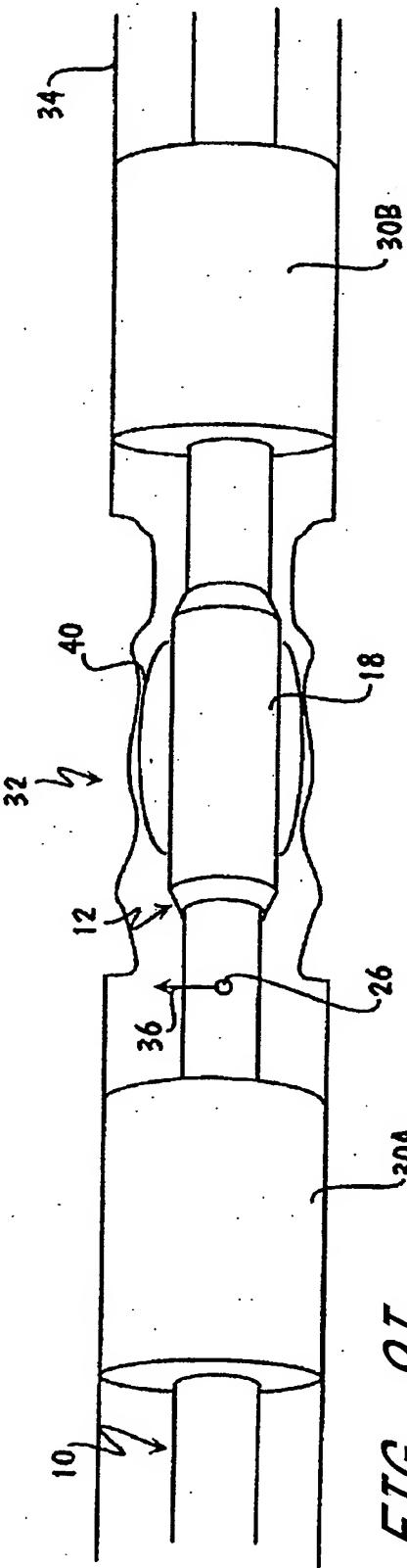


FIG. 9I

*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*

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FIG. 10B

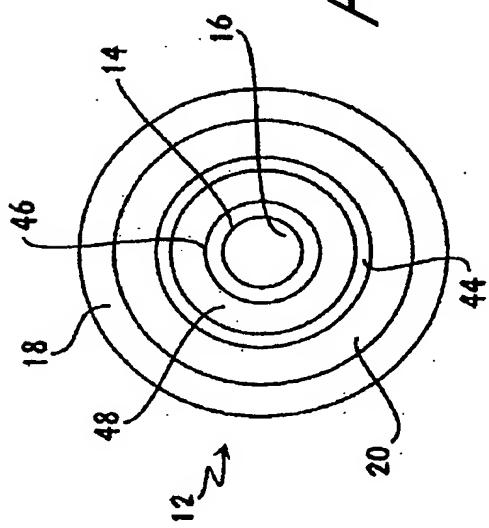
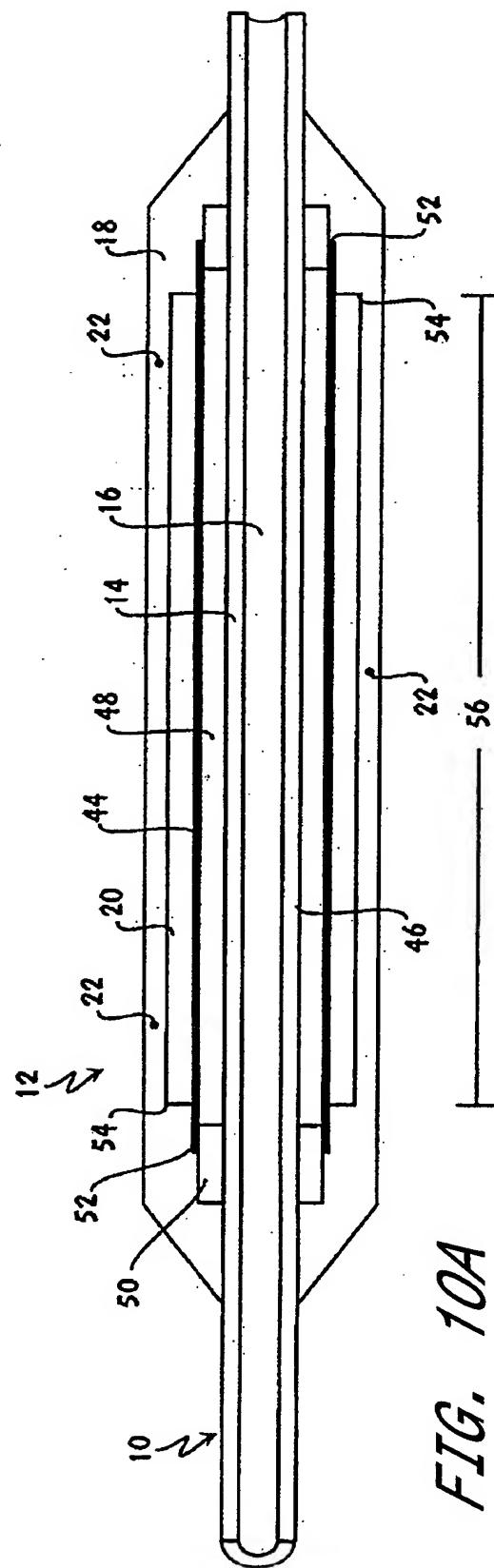


FIG. 10A



DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuro Tachibana et al.

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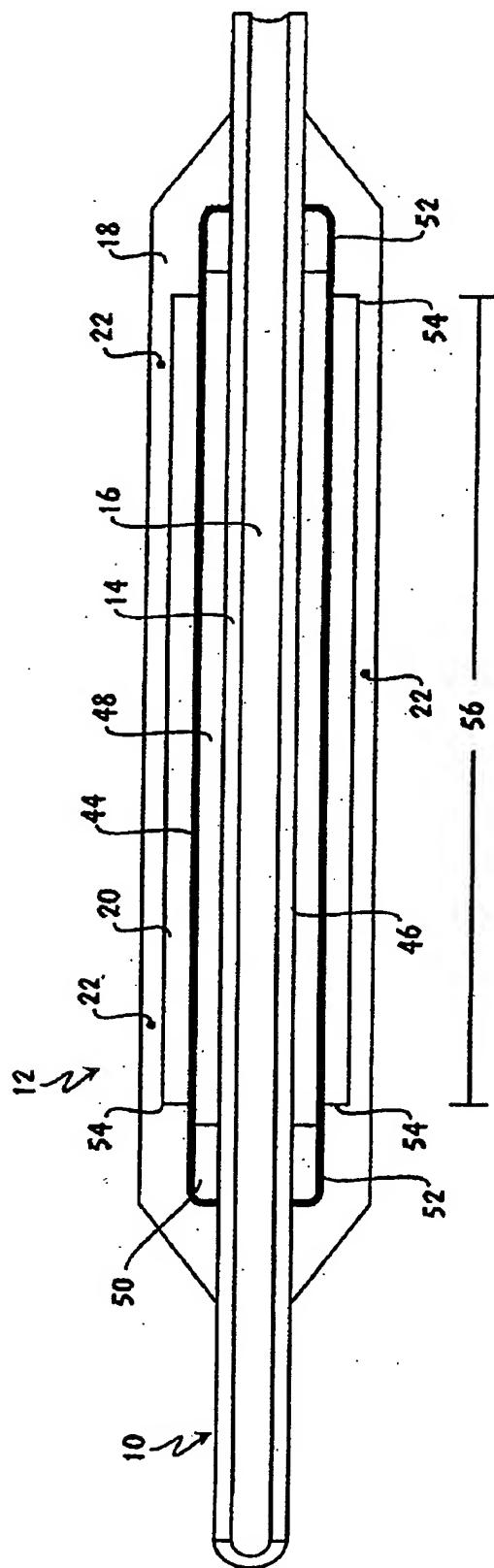


FIG. 10c

DELIVERY OF THERAPEUTIC COMPOSITIONS USING ULTRASOUND

ULTRASOUND

Katsuro Tachibana et al.
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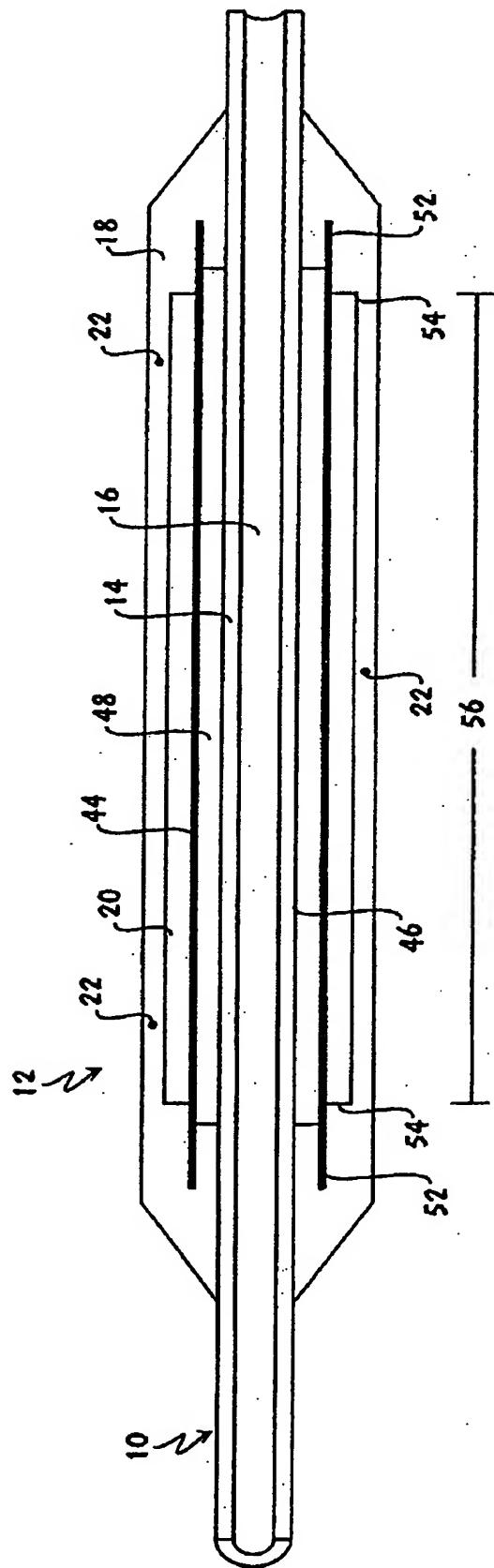


FIG. 10D

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
Katsuro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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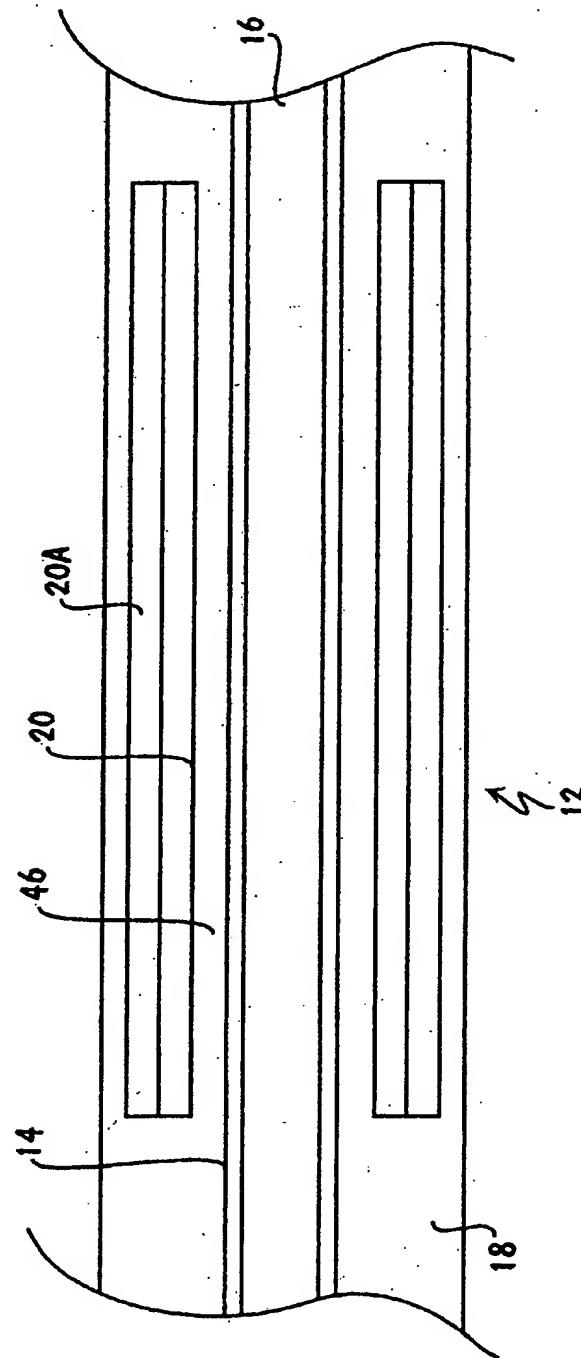


FIG. 11A

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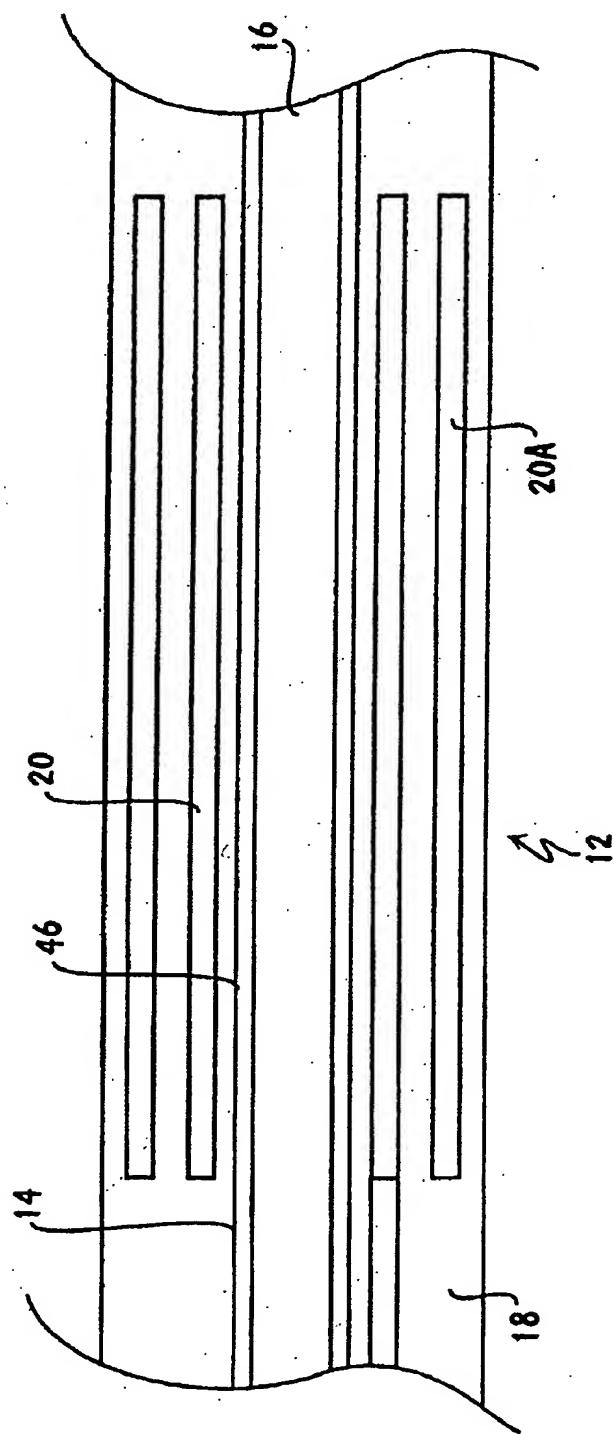


FIG. 11B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

Katsuro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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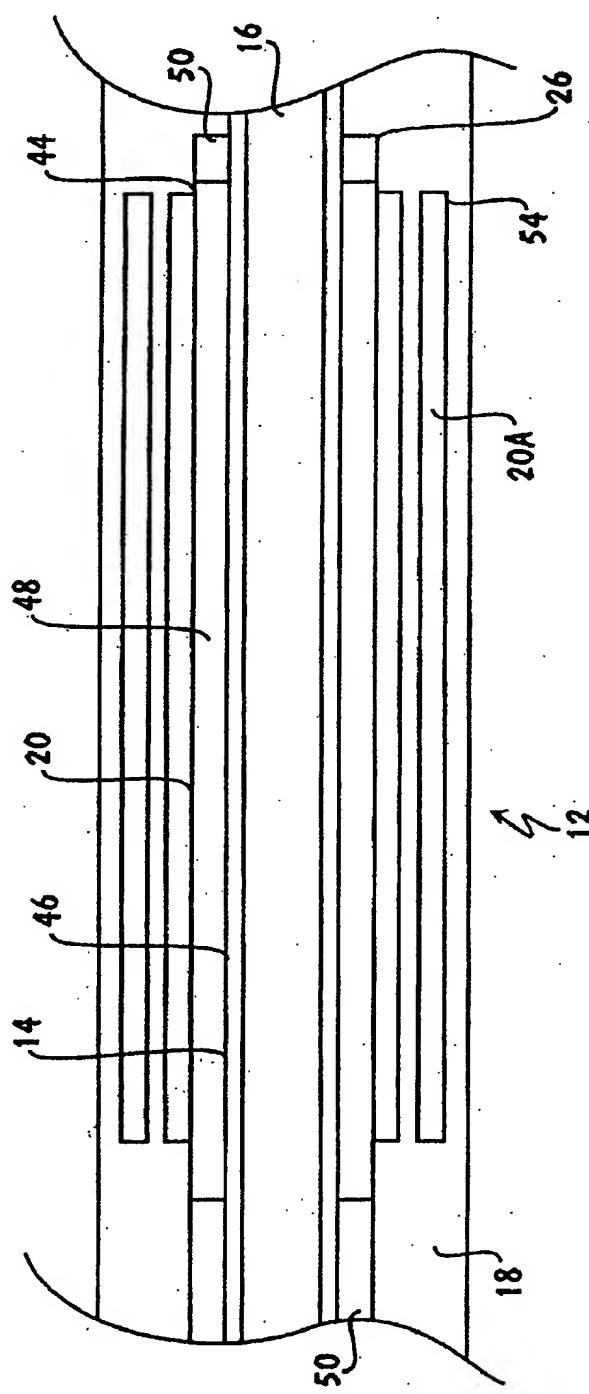


FIG. 11C

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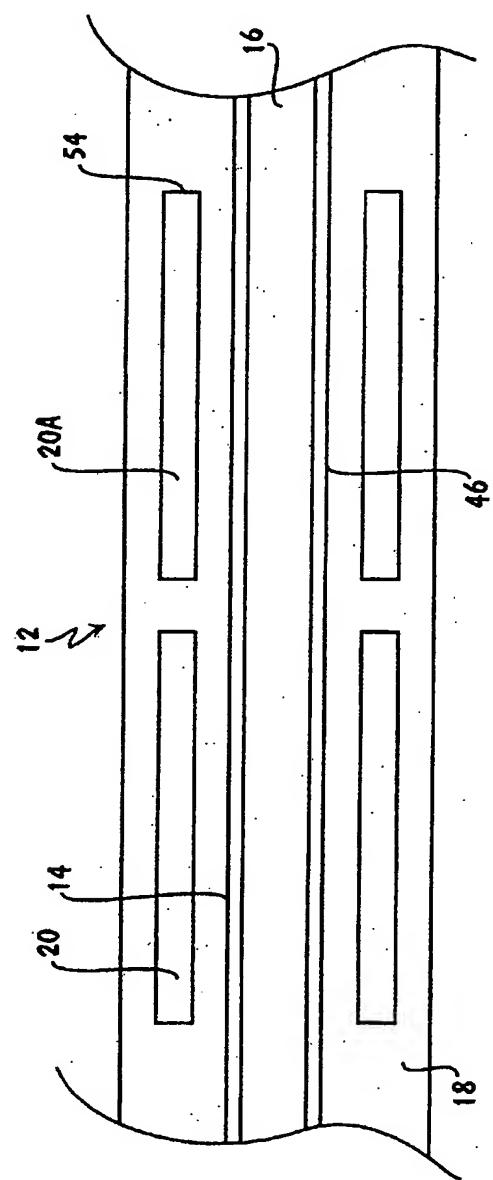


FIG. 11D

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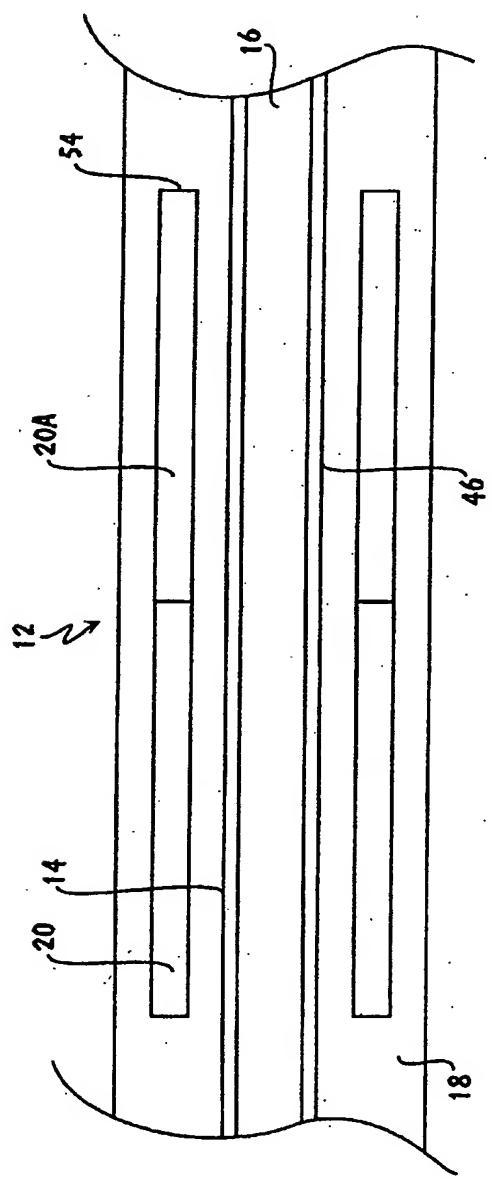


FIG. 11E

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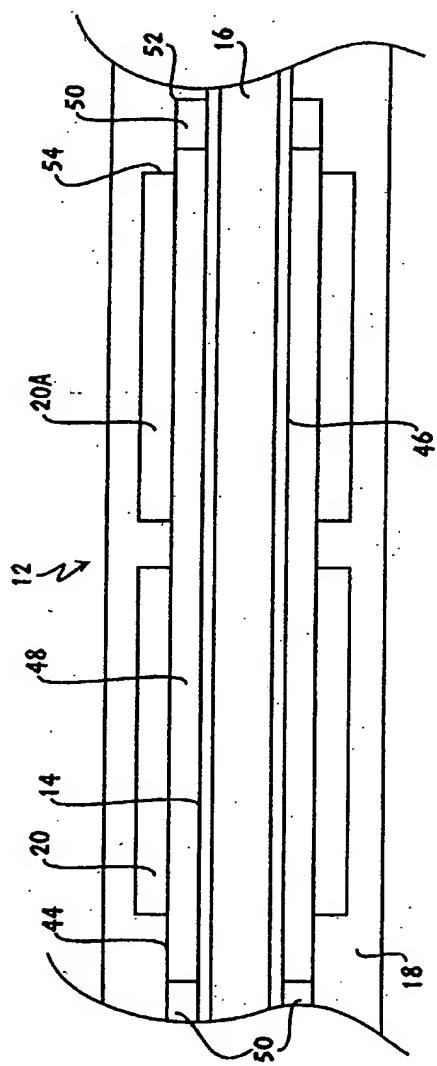


FIG. 11F

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuro Tachibana et al.

Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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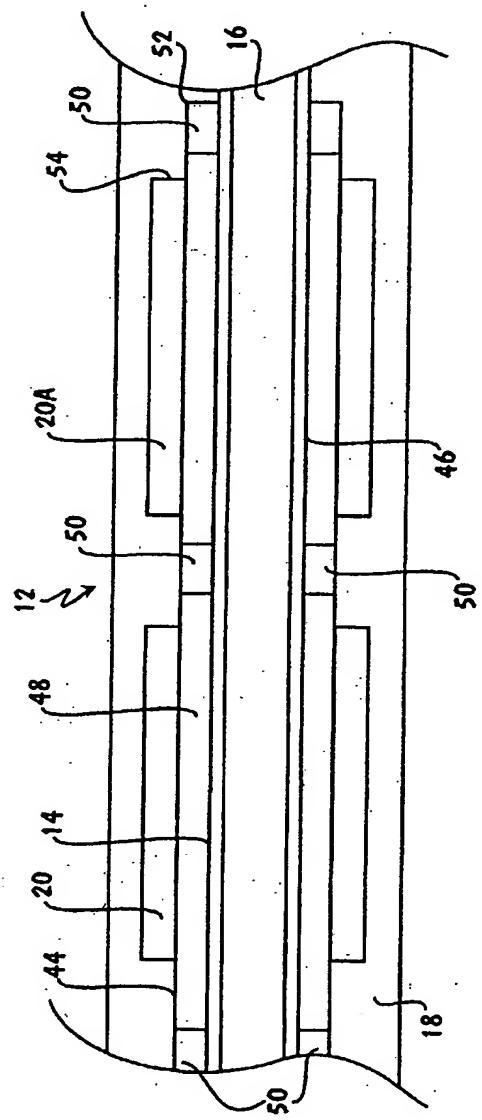


FIG. 11G

*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*

Katsuro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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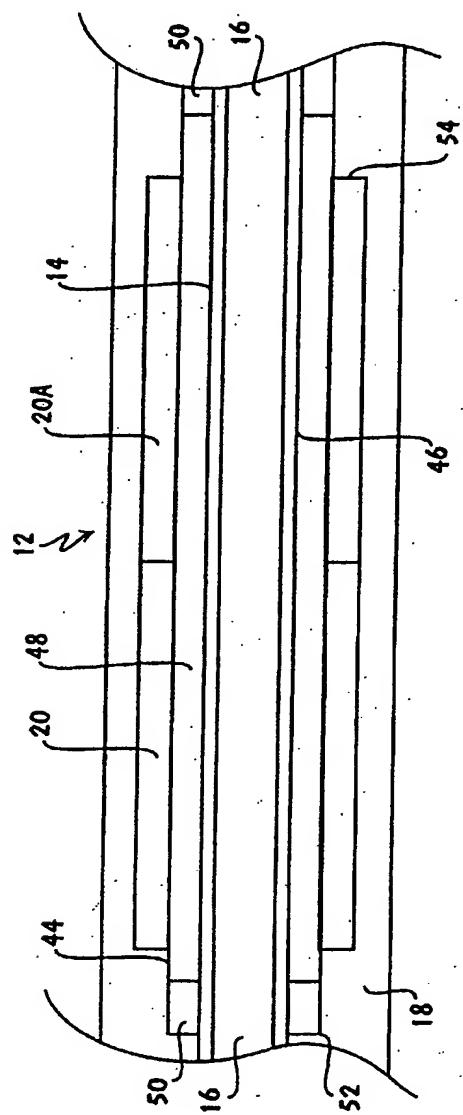


FIG. 11H

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuro Tachibana et al.

Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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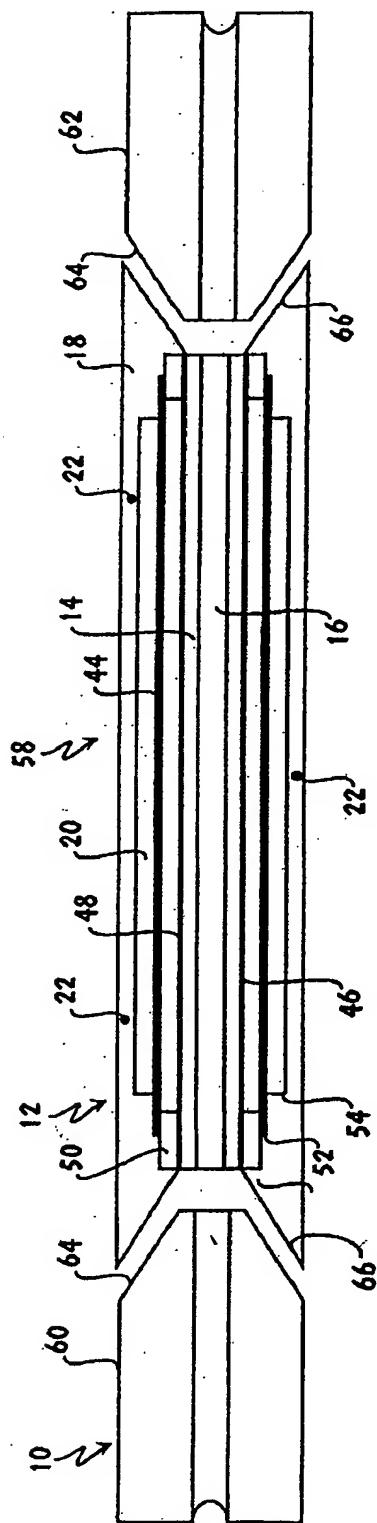


FIG. 12A

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuhiro Tachibana et al.

Appl. No.: Unknown *Atty Docket: EKOS.8CP3DV1C4*

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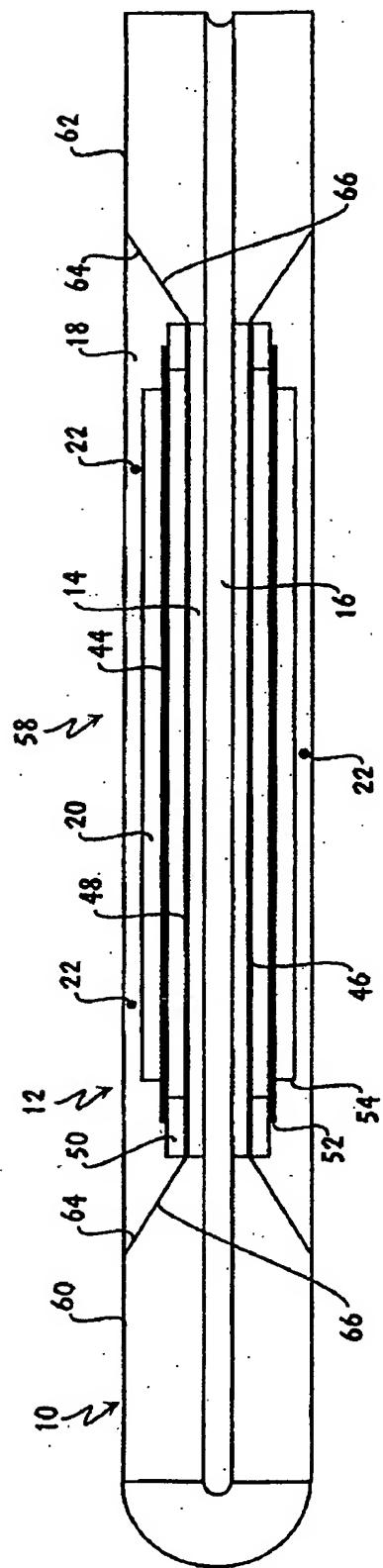


FIG. 12B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND
Katsuhiro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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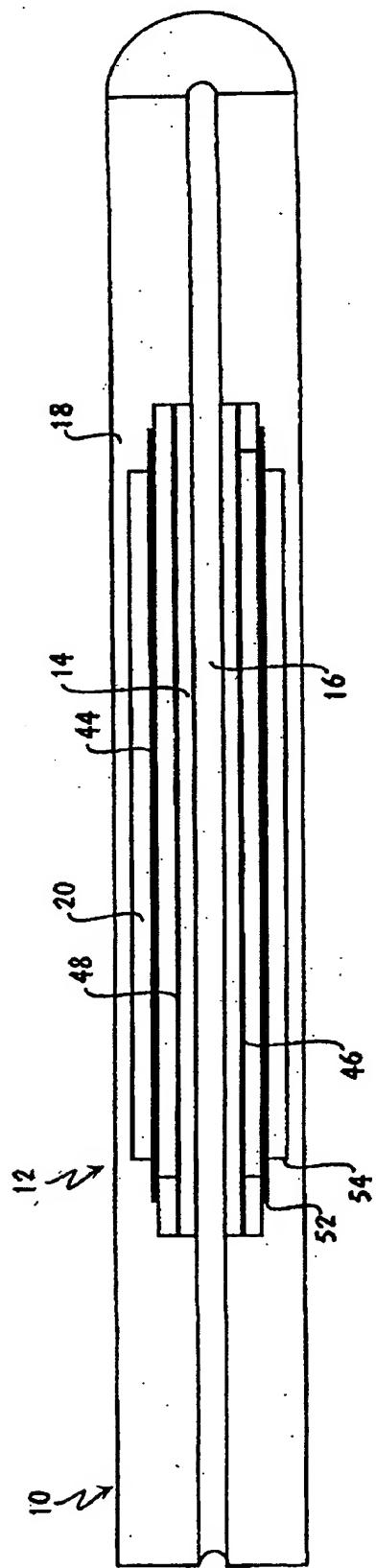


FIG. 12C

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

Katsuro Tachibana et al.

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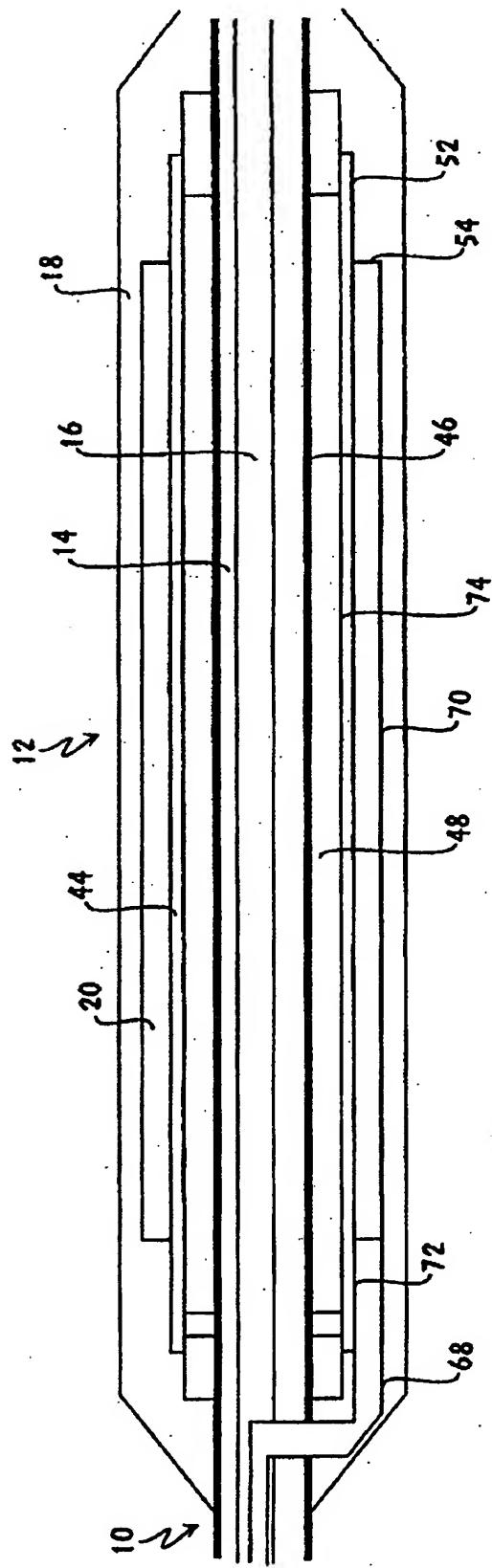


FIG. 13A

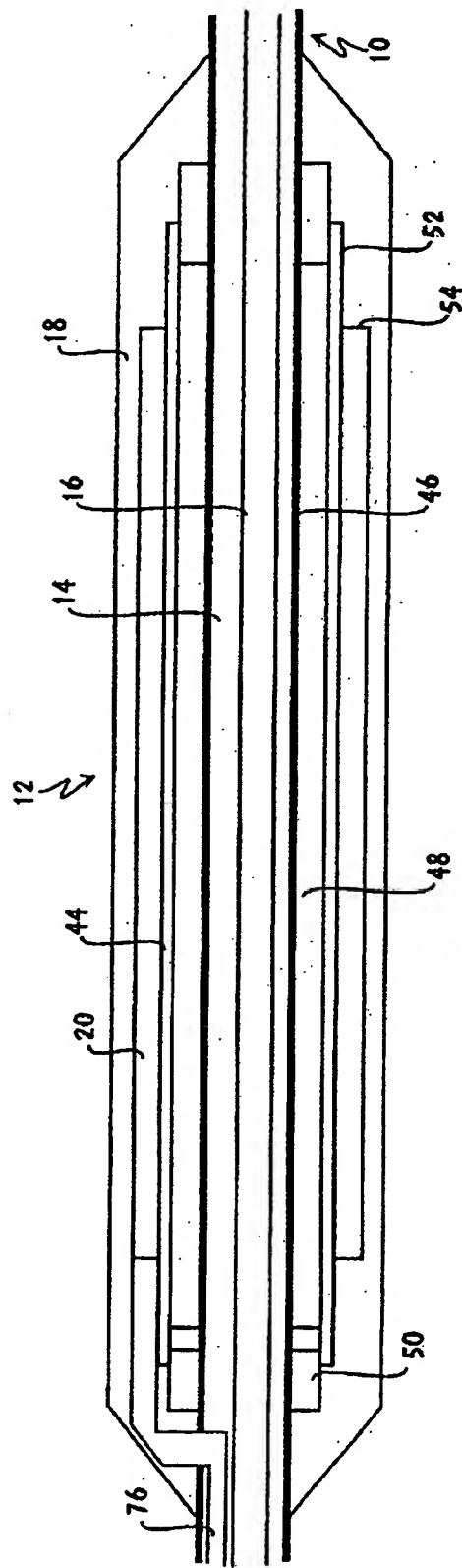


FIG. 13B

*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*

Katsuro Tachibana et al.
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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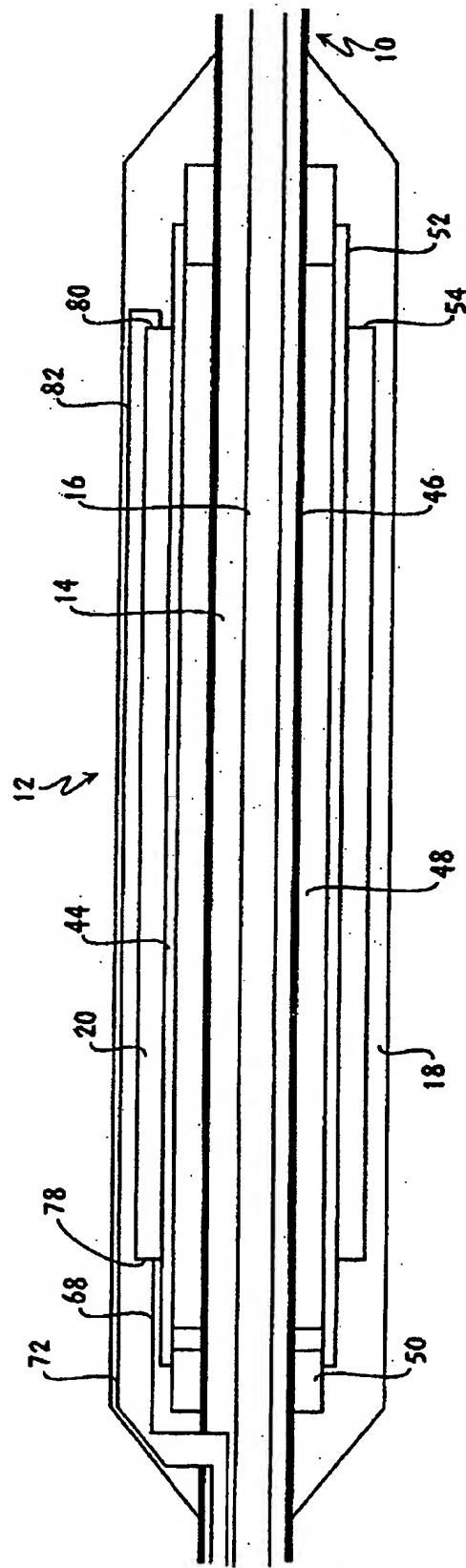


FIG. 13C

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuro Tachibana et al.

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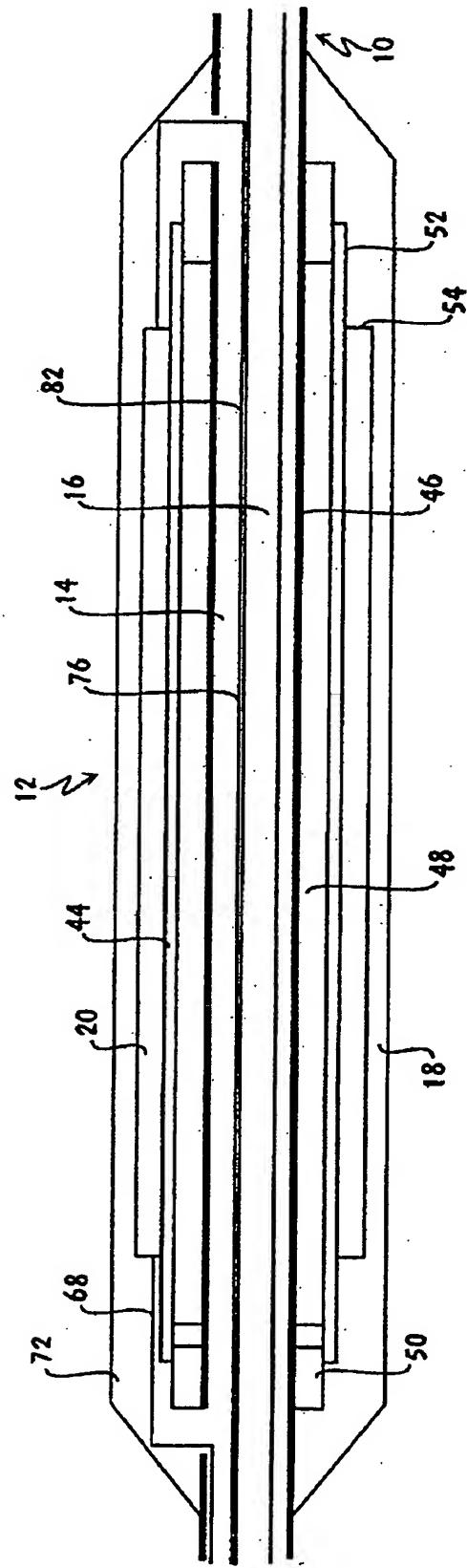
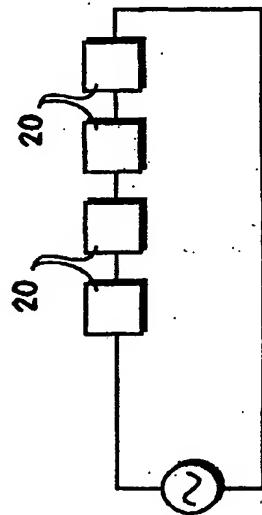
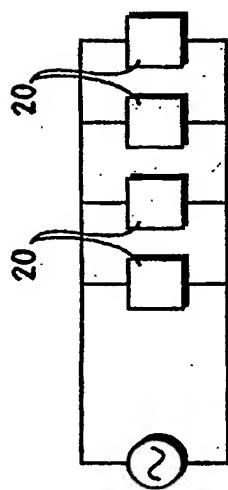
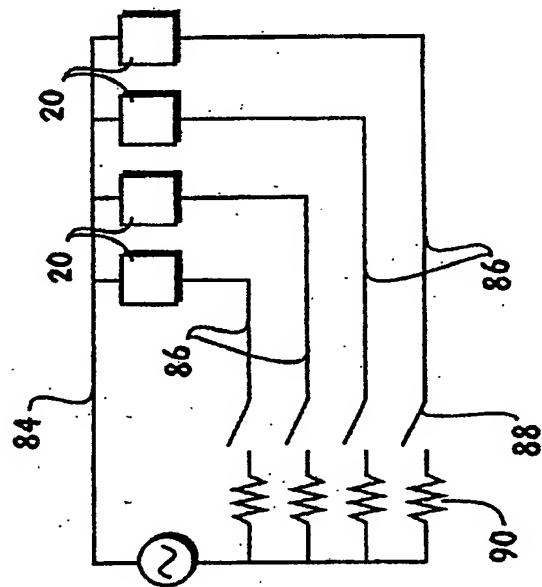


FIG. 13D

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

Katsuro Tachibana et al.
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DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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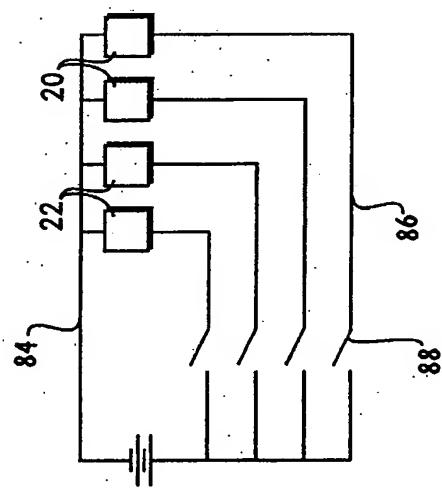
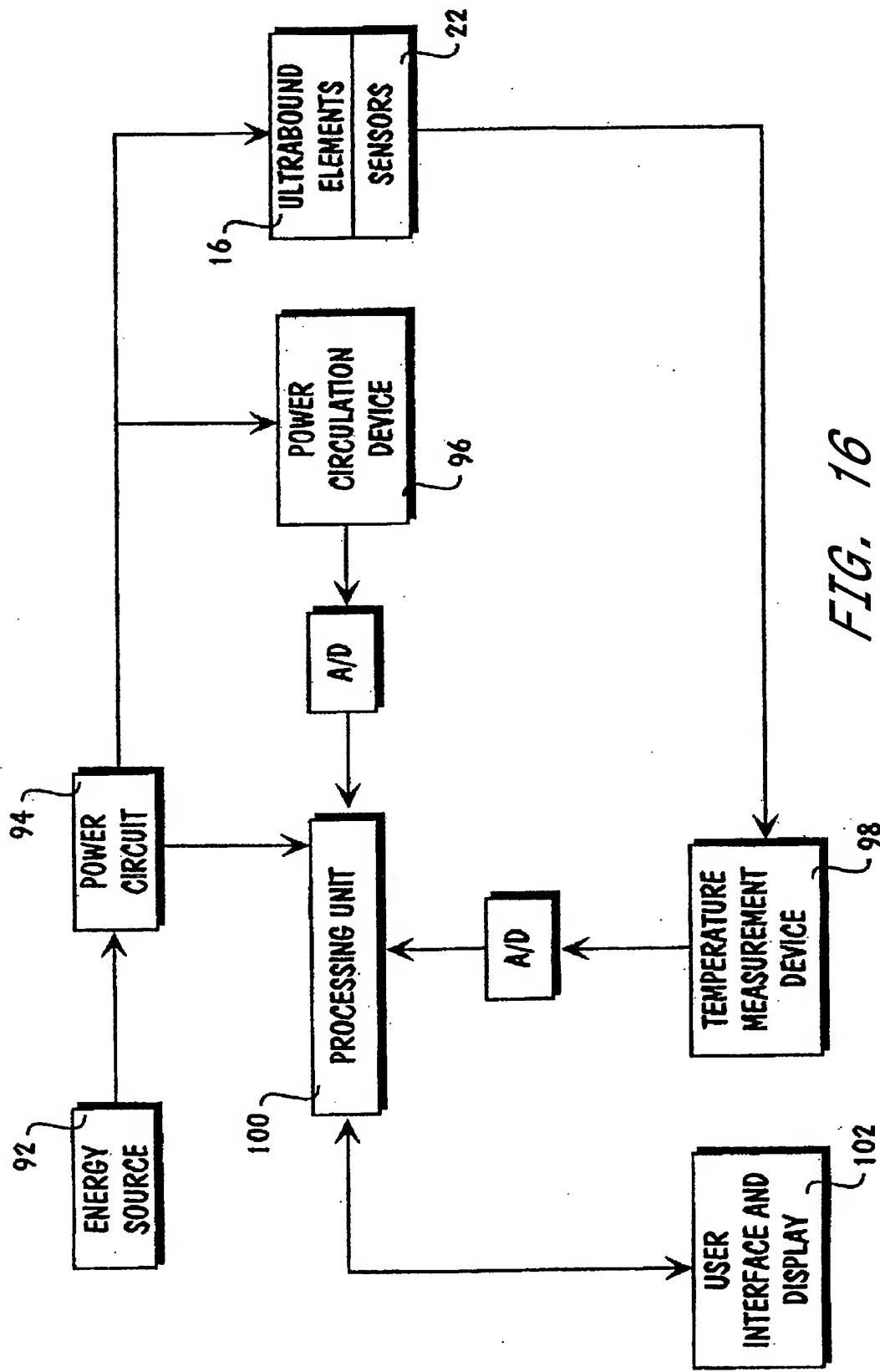


FIG. 15



DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

Katsuro Tachibana et al.

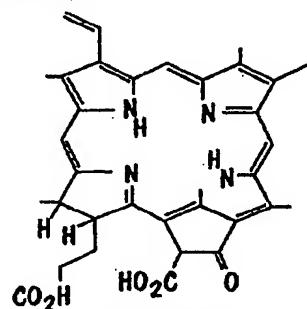
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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CHLORINA

NATURALLY OCCURRING:

FIG. 17C

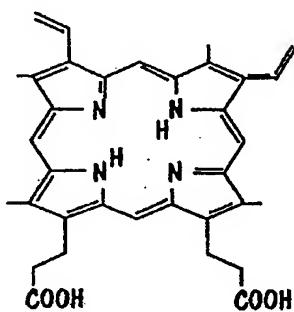


PHEOPHORBIDE

FIG. 17A

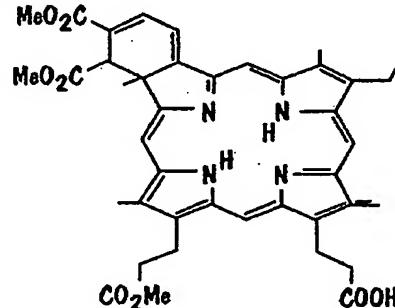
PORPHYRINA:

NATURALLY OCCURRING:



PROTOPORPHYRIN IX

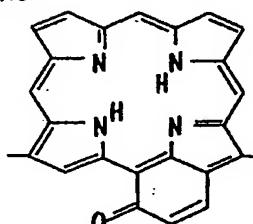
SYNTHETIC:



BPD MONO ACID RING A

FIG. 17D

SYNTHETIC:



VERDIA

FIG. 17B

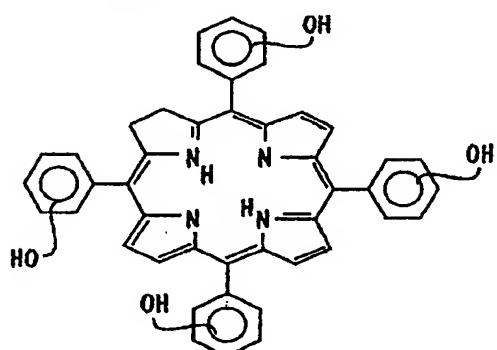
*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*

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FIG. 17E

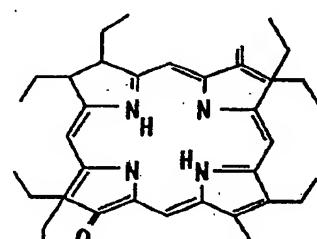
SYNTHETIC:



MESO-TETRA (HYDROXYPHENYL)
CHLORIN

FIG. 17H

SYNTHETIC:

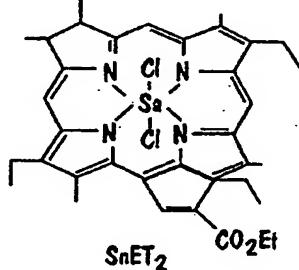


OCTAETHYLDIOXOBACTERIOCHLORIN

SYNTHETIC ISOBACTERIOCHLORIN:

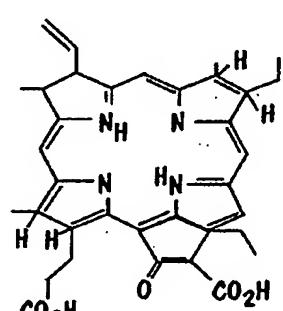
SYNTHETIC:

FIG. 17F



BACTERIACHLORINA:

NATURALLY OCCURRING:



BACTACIOPHORBIDE

FIG. 17G

FIG. 17I

PHTHALOCYARINEA:



ZINC PHTHALCYANINE

FIG. 17J

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
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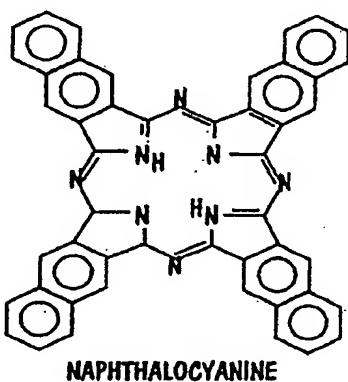


FIG. 17K

PORPHYCENES:

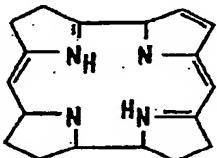


FIG. 17L

SAPPHYRINS:

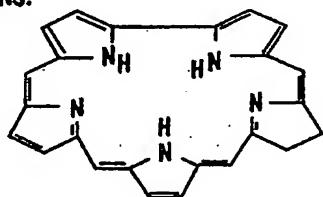


FIG. 17M

TEXAPHYRIAS:

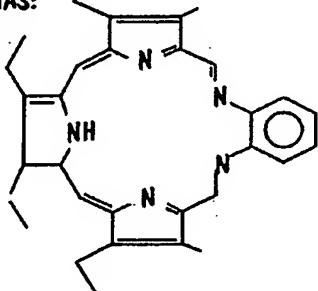


FIG. 17N

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
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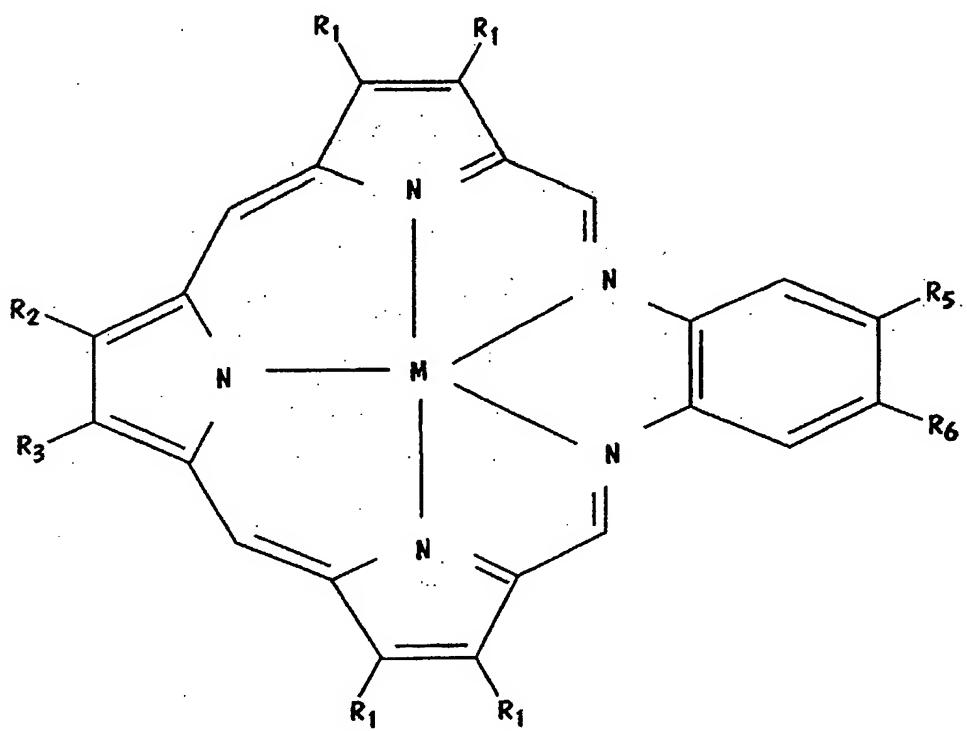


FIG. 17B-2

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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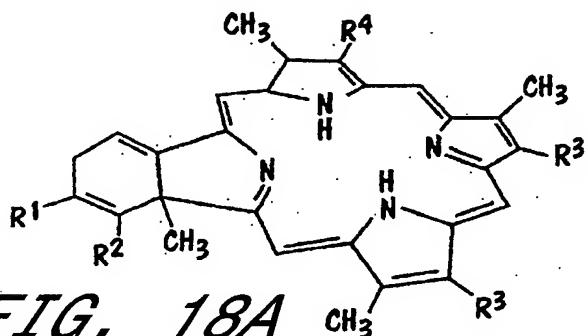


FIG. 18A

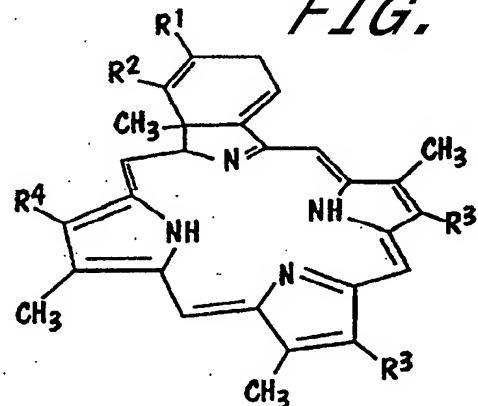


FIG. 18B

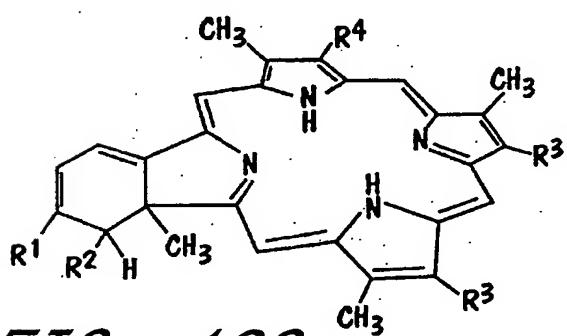


FIG. 18C

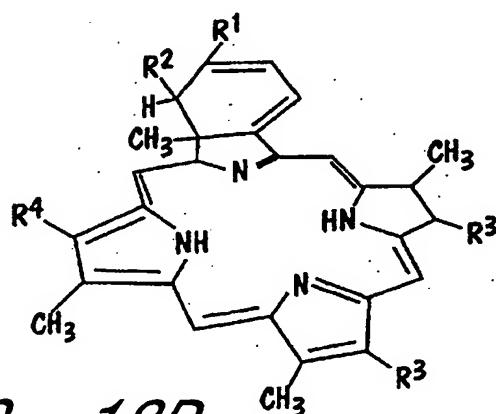


FIG. 18D

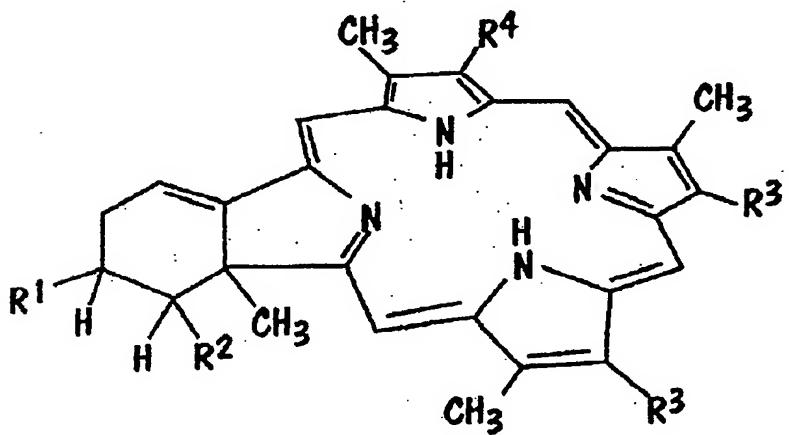
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ULTRASOUND

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FIG. 18E



OR

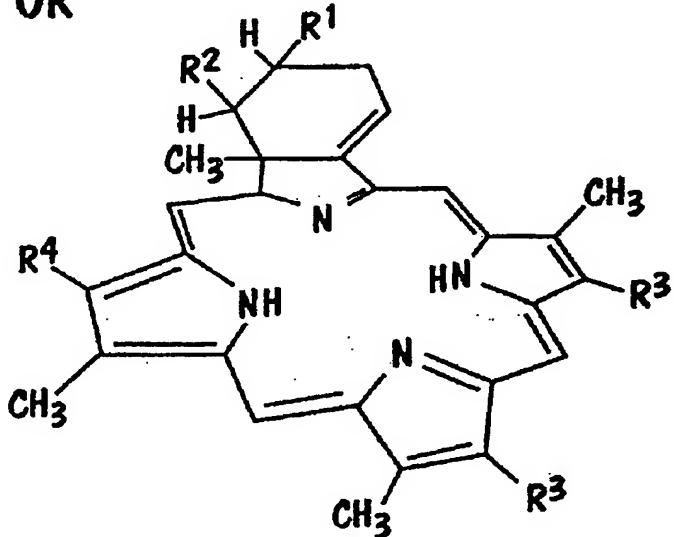


FIG. 18F

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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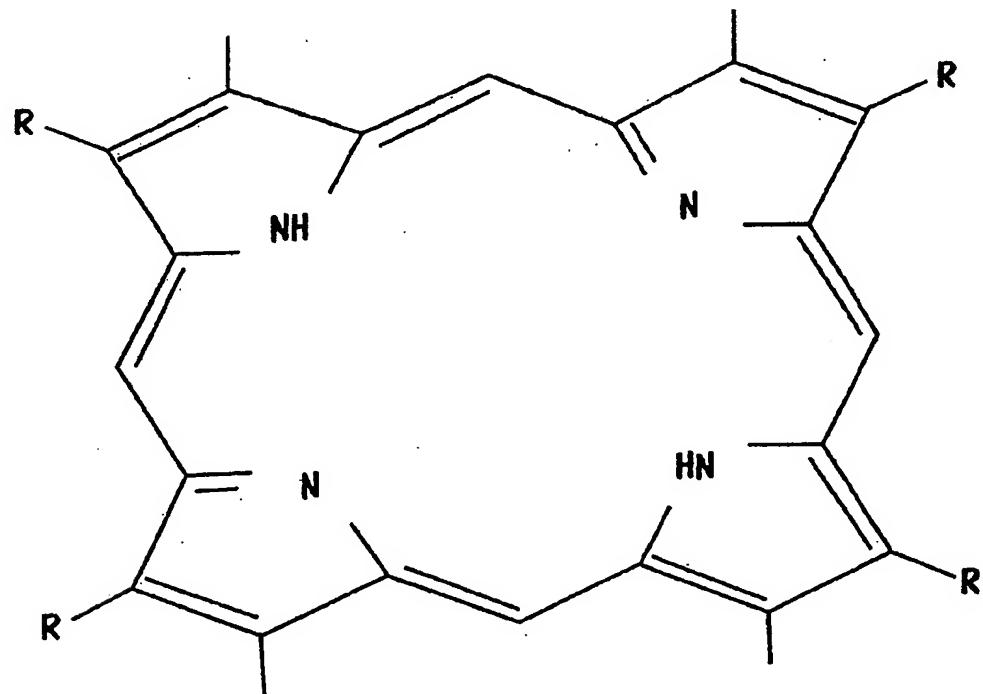
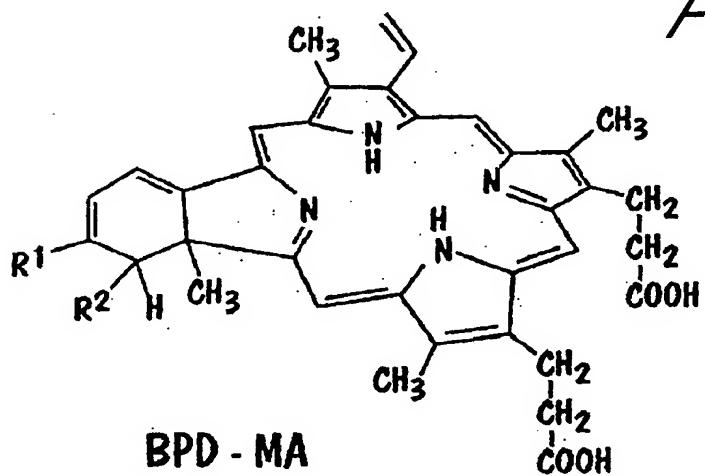


FIG. 19

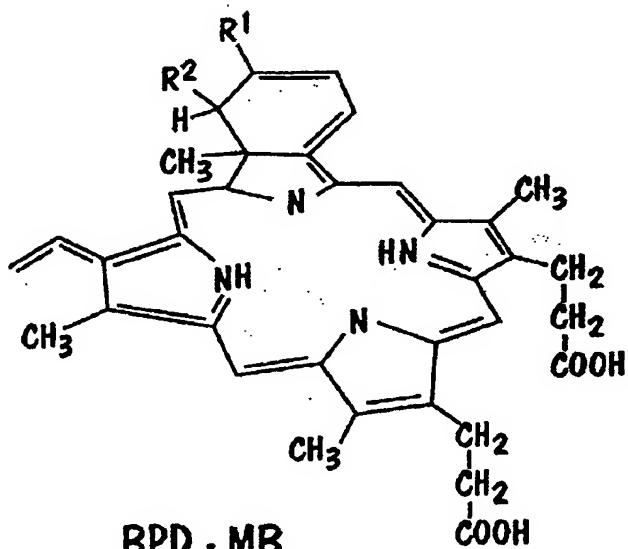
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FIG. 20A



BPD - MA

AND



BPD - MB

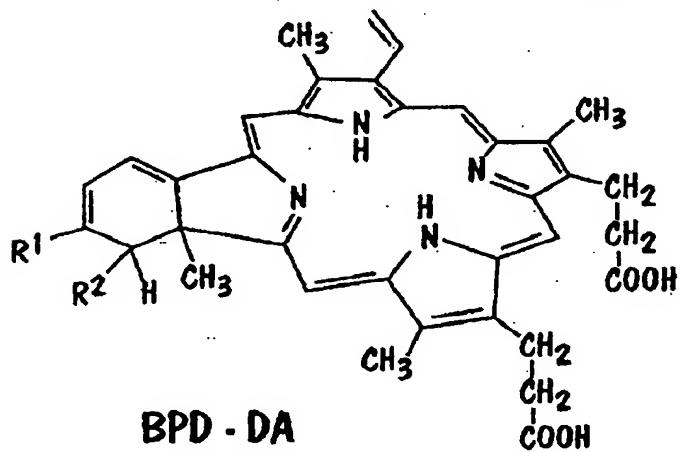
FIG. 20B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

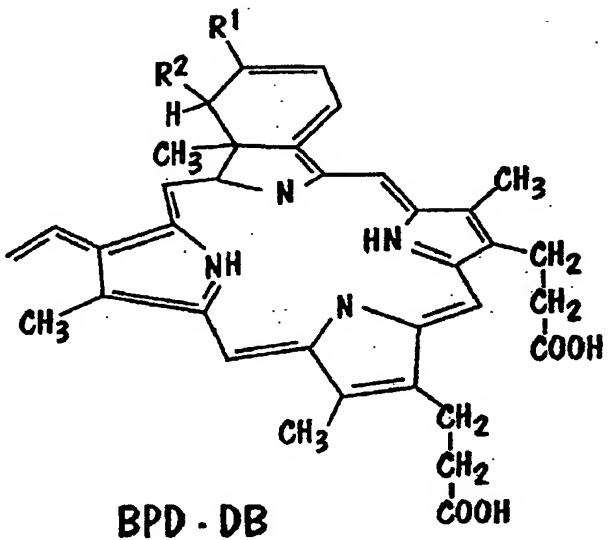
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FIG. 20C



BPD - DA



BPD - DB

FIG. 20D

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

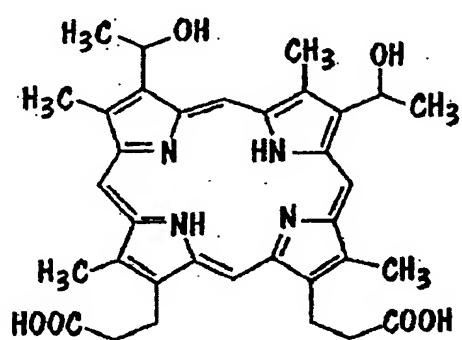
ULTRASOUND

Katsuro Tachibana et al.

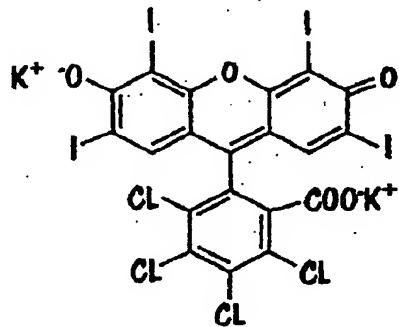
Appl. No.: Unknown Atty Docket: EKOS.8CP3DV1C4

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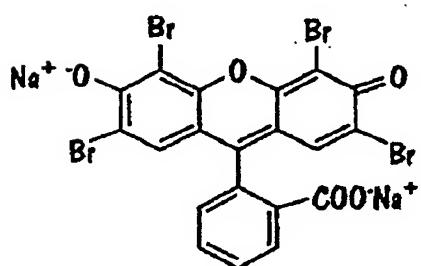
HEMATOPORPHYRIN
[FORMULA A]



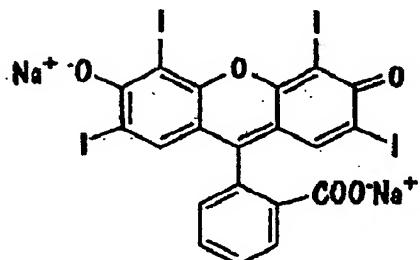
ROSE BENGAL
[FORMULA B]



EROSIN Y
[FORMULA C]



ERYTHROCIDIN
[FORMULA D]



RHODAMINE B
[FORMULA E]

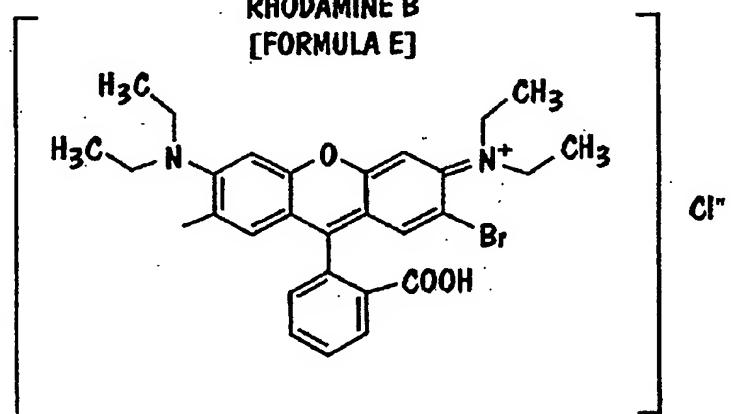


FIG. 21A

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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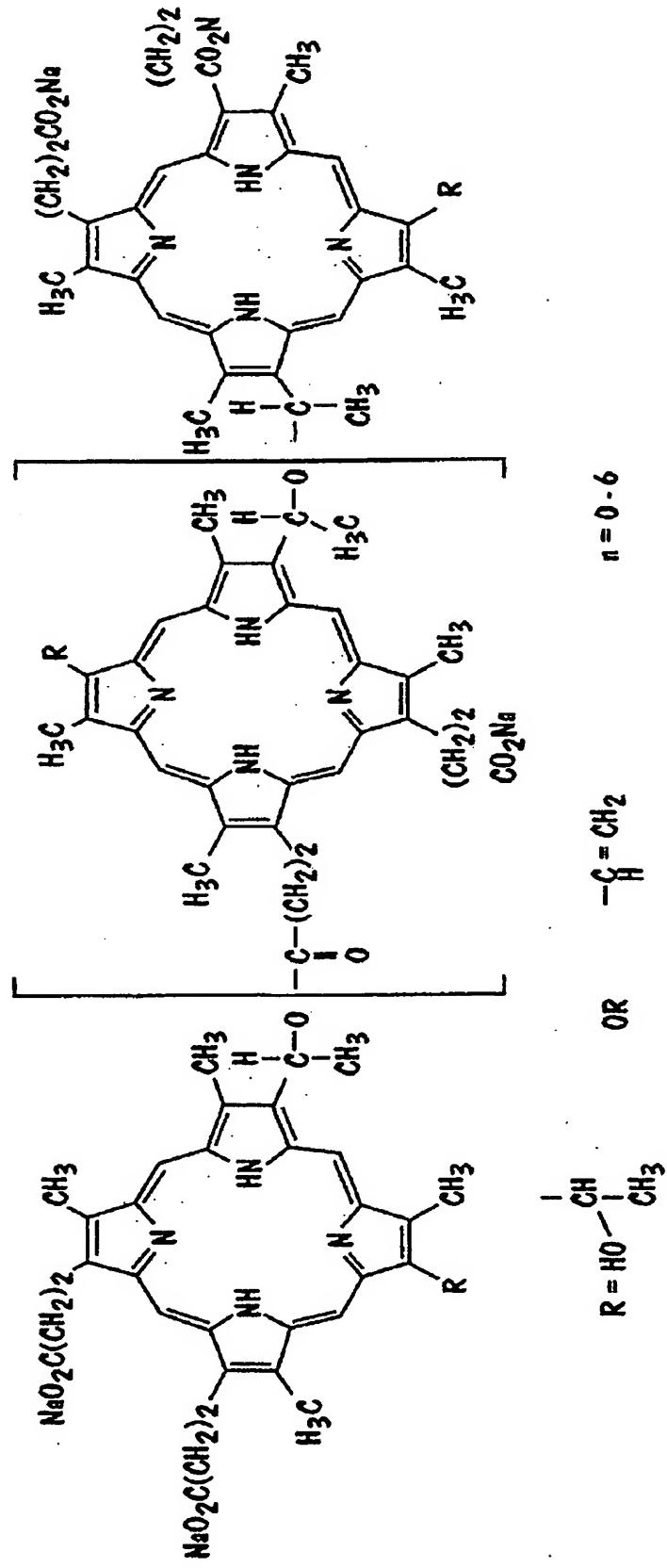


FIG. 21B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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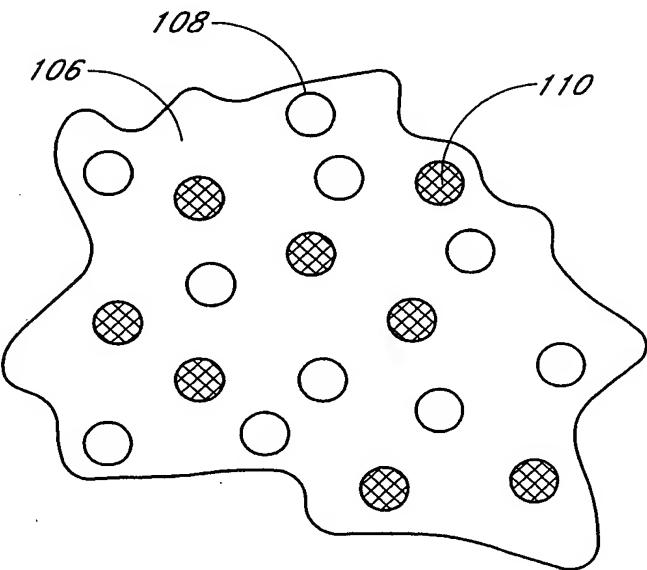


FIG. 22

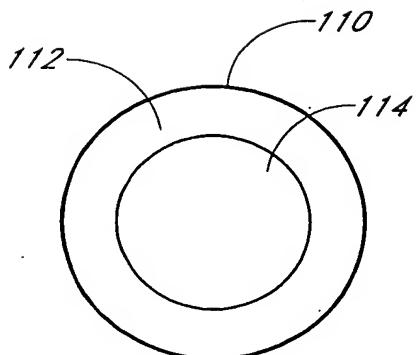


FIG. 23A

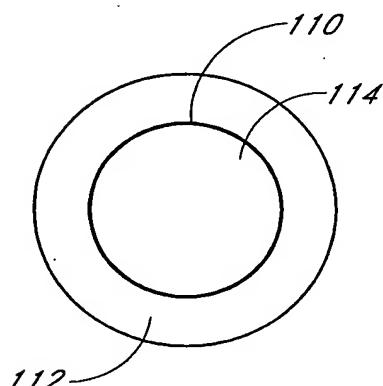


FIG. 23B

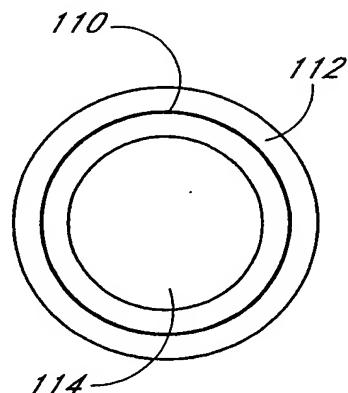
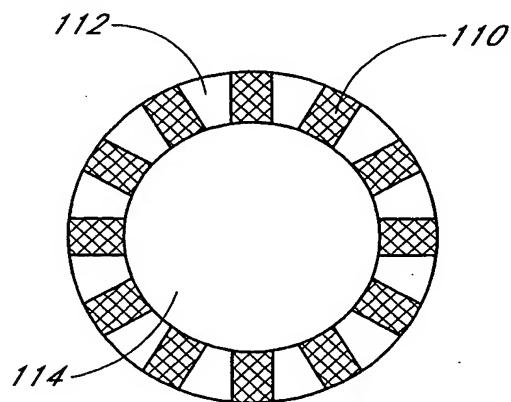
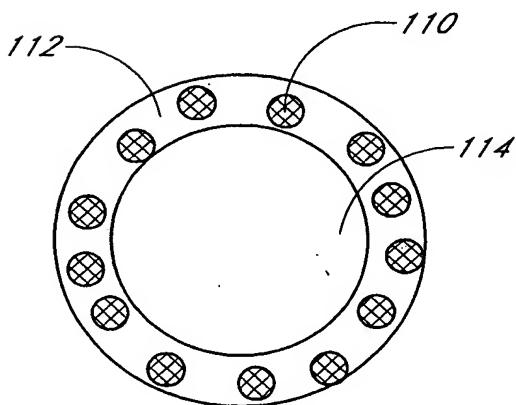
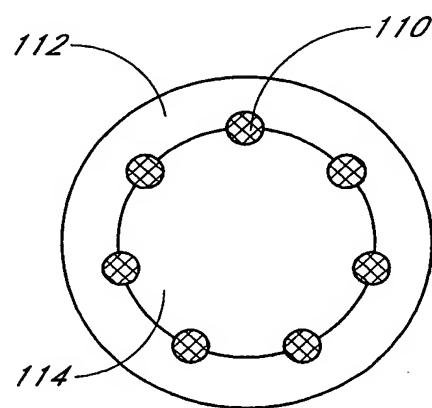
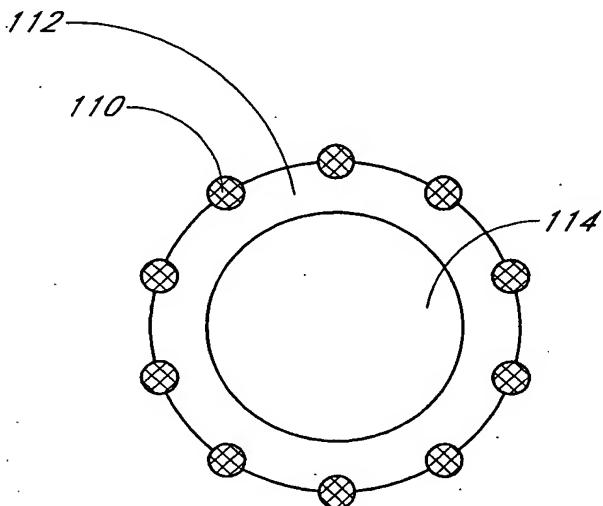


FIG. 23C

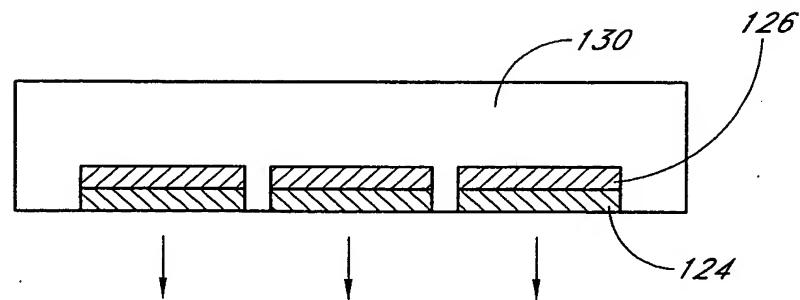
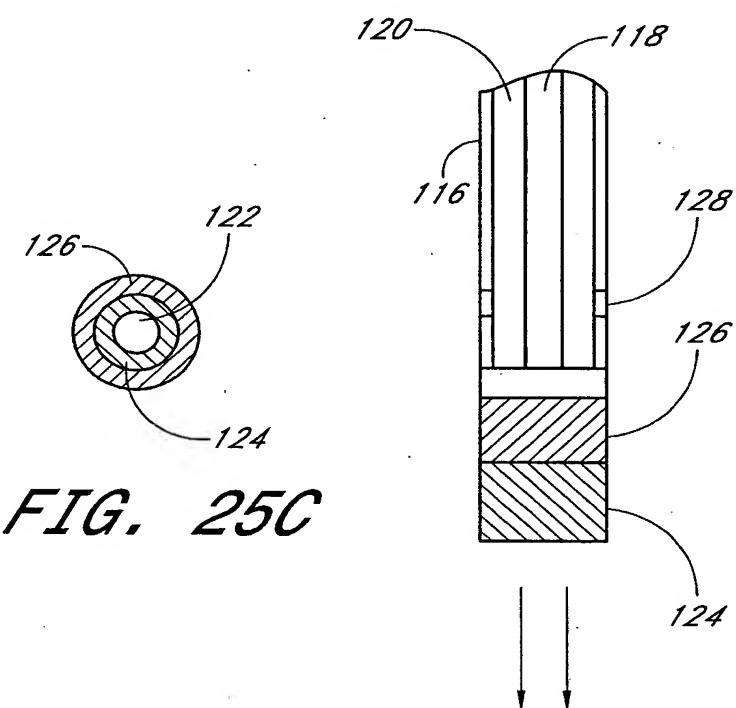
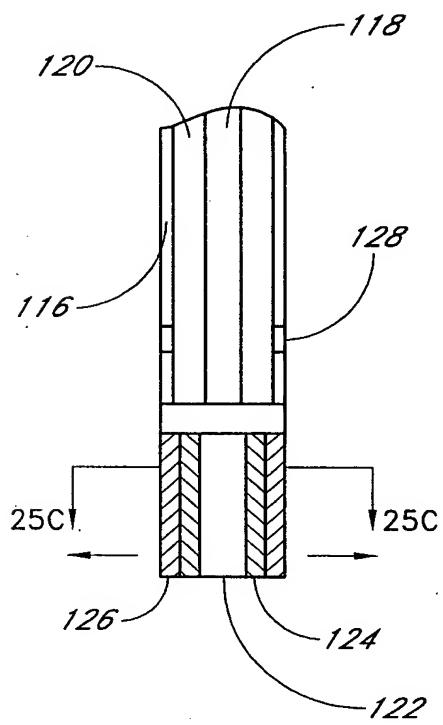
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ULTRASOUND*
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ULTRASOUND

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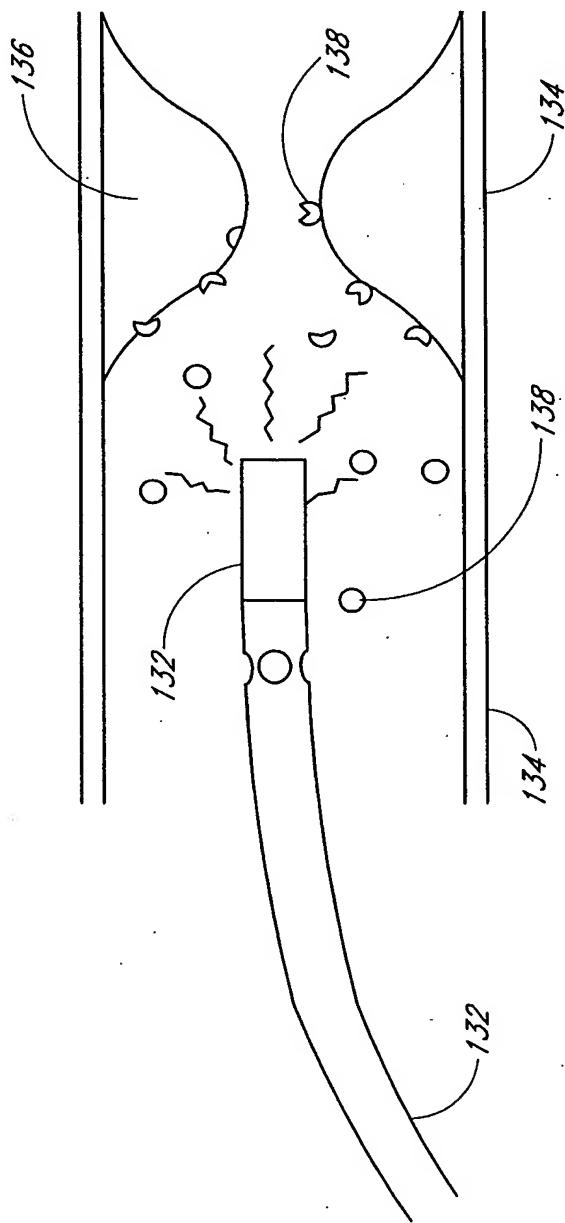


FIG. 27

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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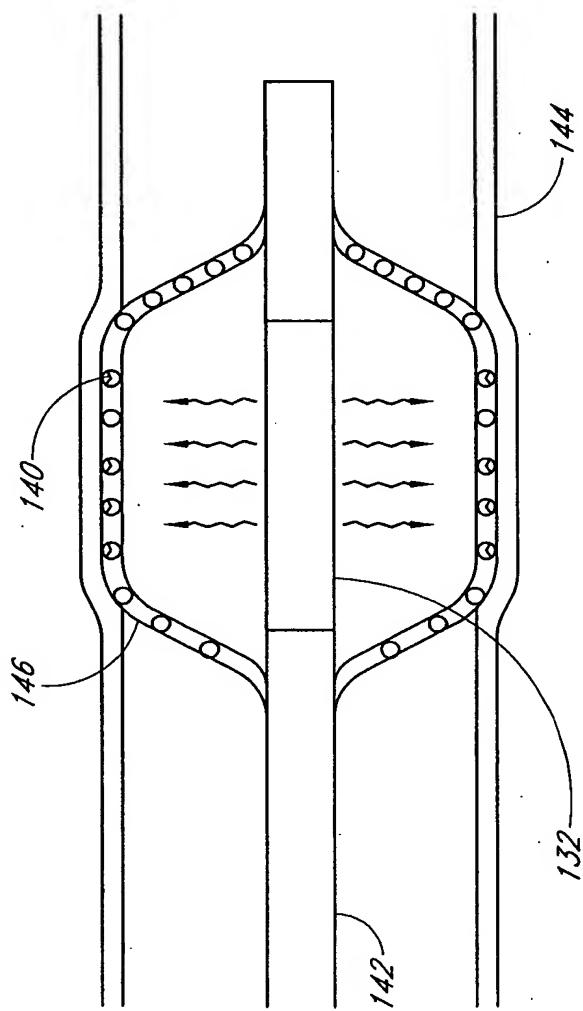


FIG. 28

*DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND*
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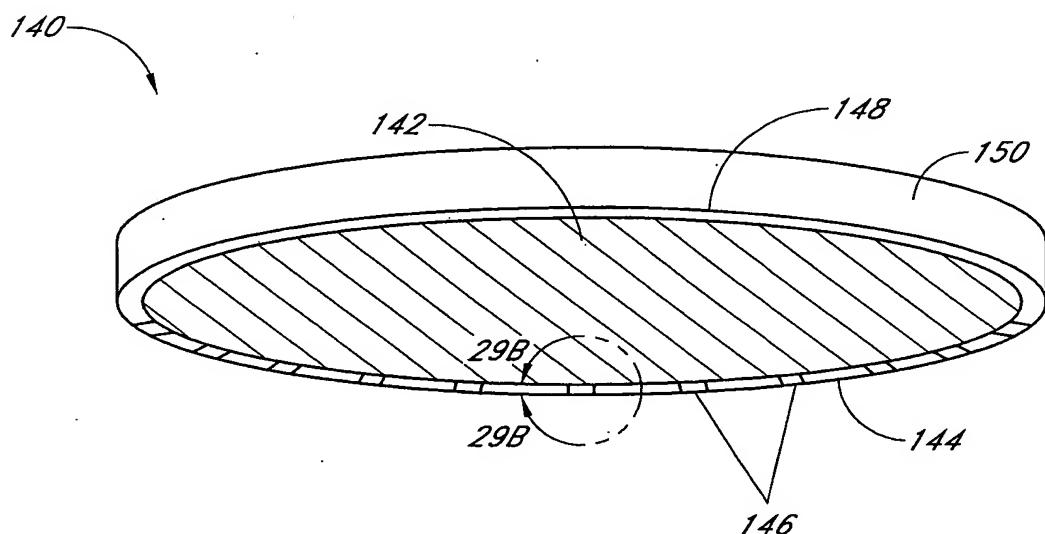


FIG. 29A

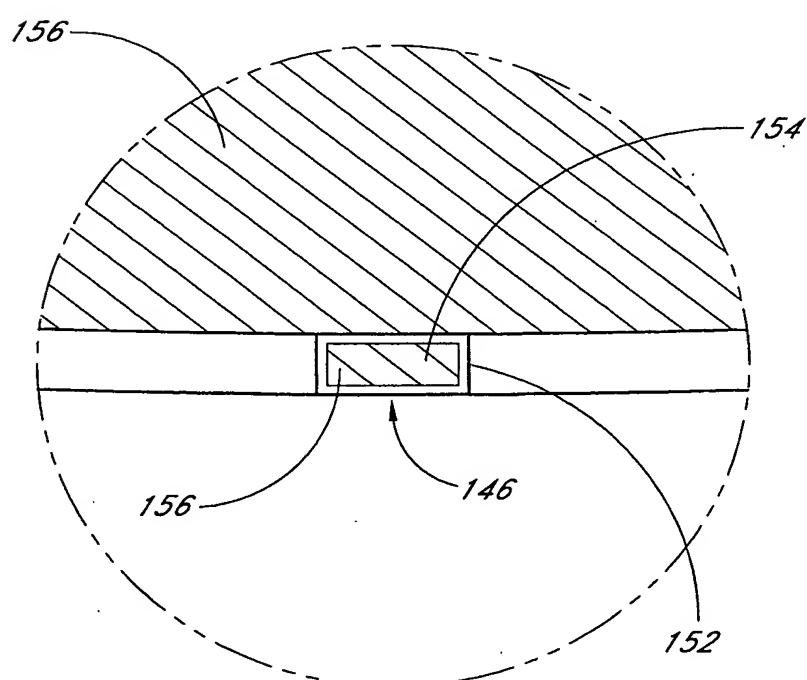


FIG. 29B

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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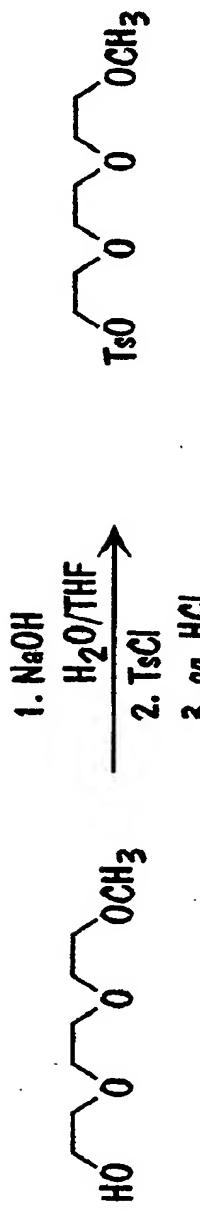


FIG. 30A

FIG. 30B

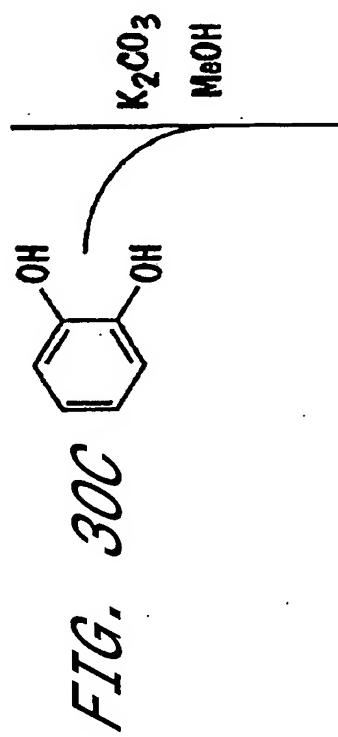


FIG. 30C

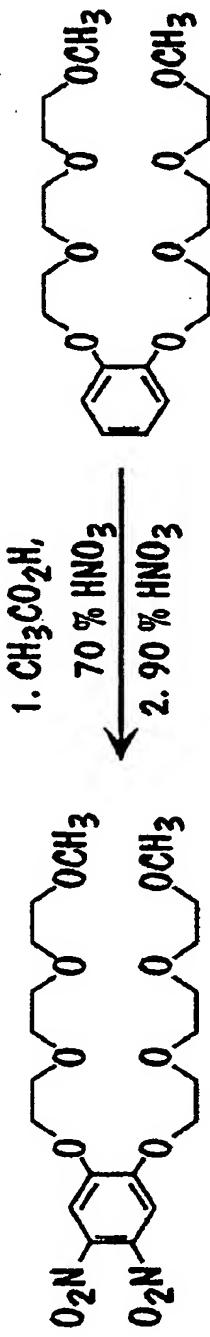
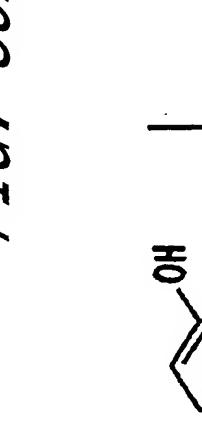


FIG. 30E

FIG. 30D

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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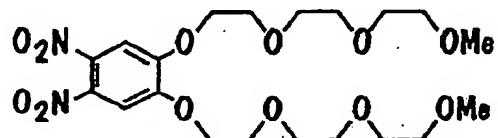


FIG. 30E

HYDRAZINE HYDRATE,
10% Pd/C, EtOH

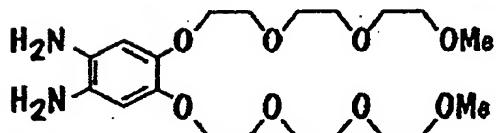


FIG. 30F

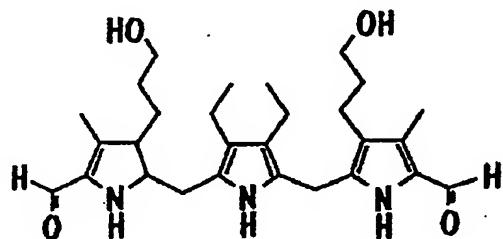


FIG. 30G

1.2 eq 12M HCl,
MeOH

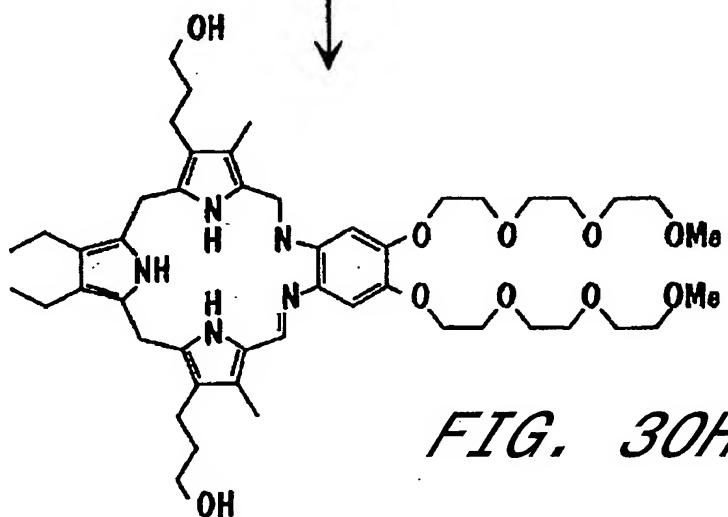


FIG. 30H

DELIVERY OF THERAPEUTIC COMPOSITIONS USING
ULTRASOUND

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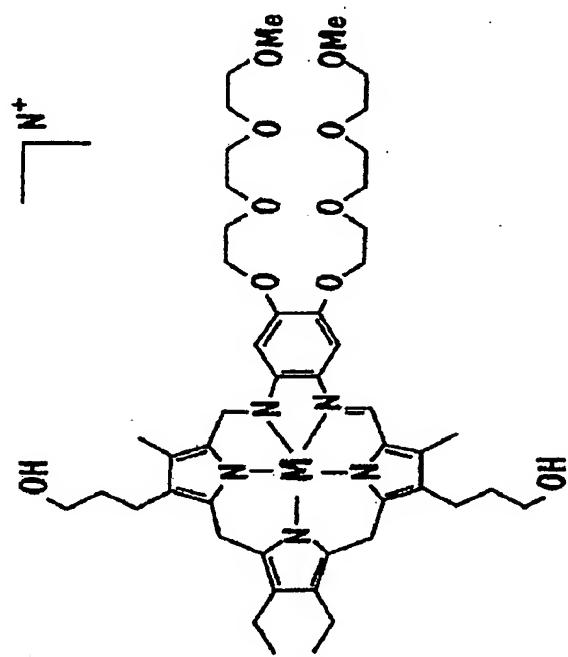


FIG. 30I

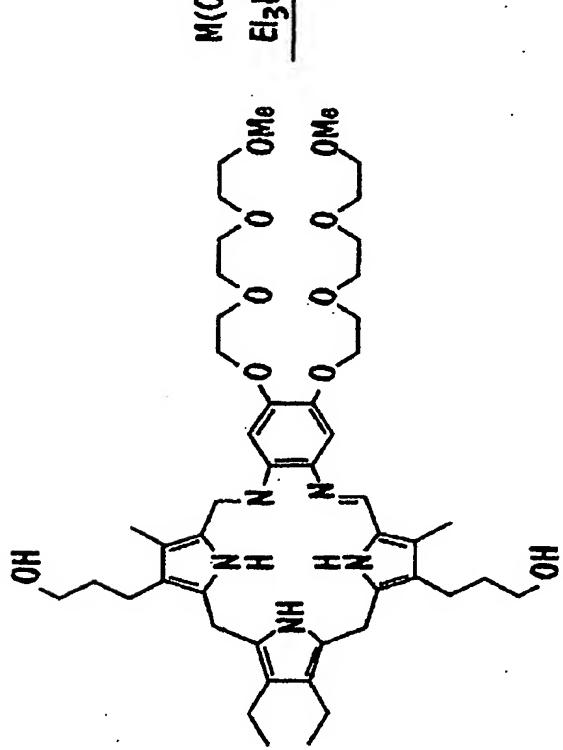


FIG. 30H

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ULTRASOUND*

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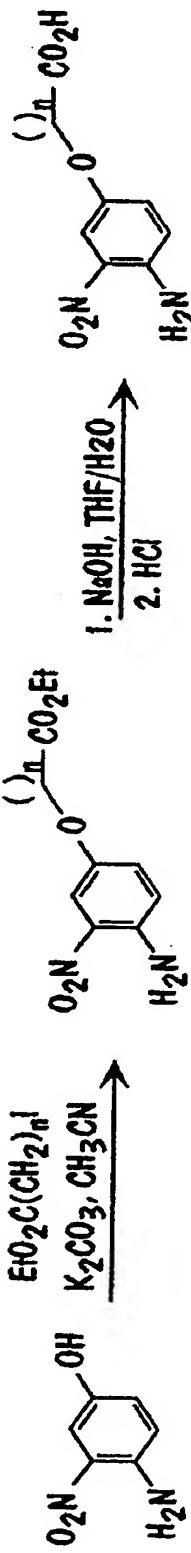


FIG. 31B

FIG. 31C

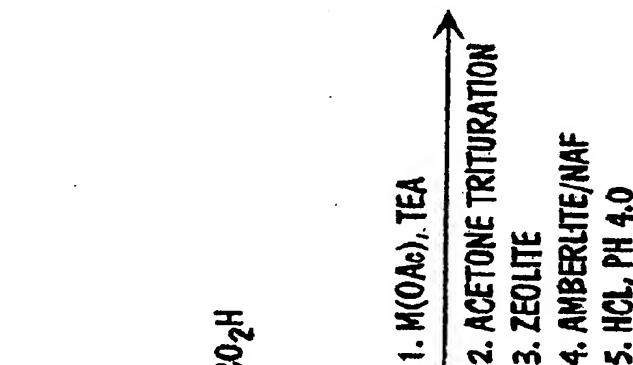
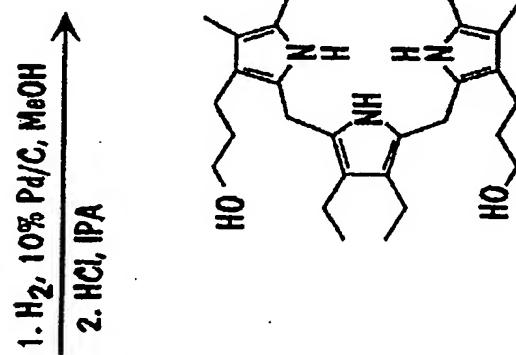
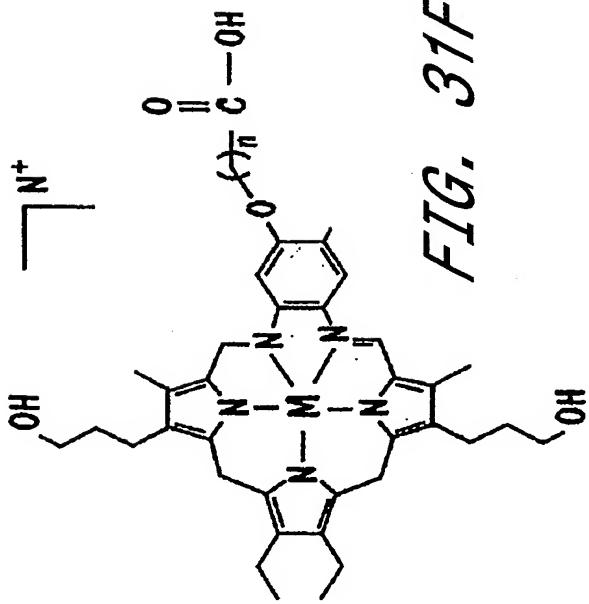


FIG. 31E

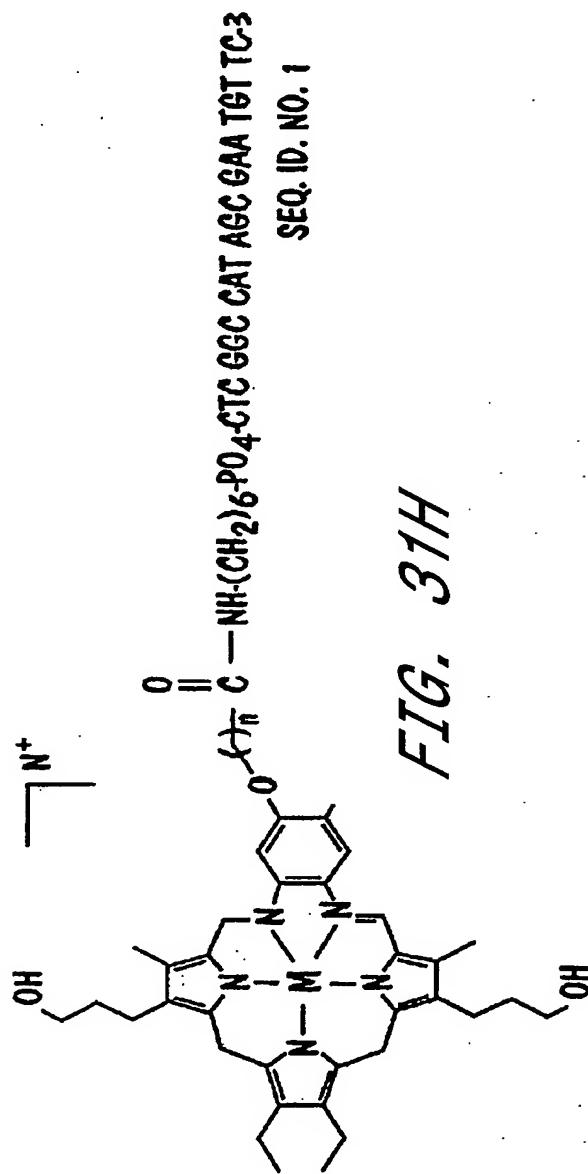
FIG. 31D





1. NHS, DCC, DMF
2. 5'-NH₂-(CH₂)₆-PO₄-CTC-GCC-CAT-AGC-GAA-TGT-TG-3
(0.4 M NaHCO₃, pH 8.6) SEQ. ID. NO. 1

FIG. 31G



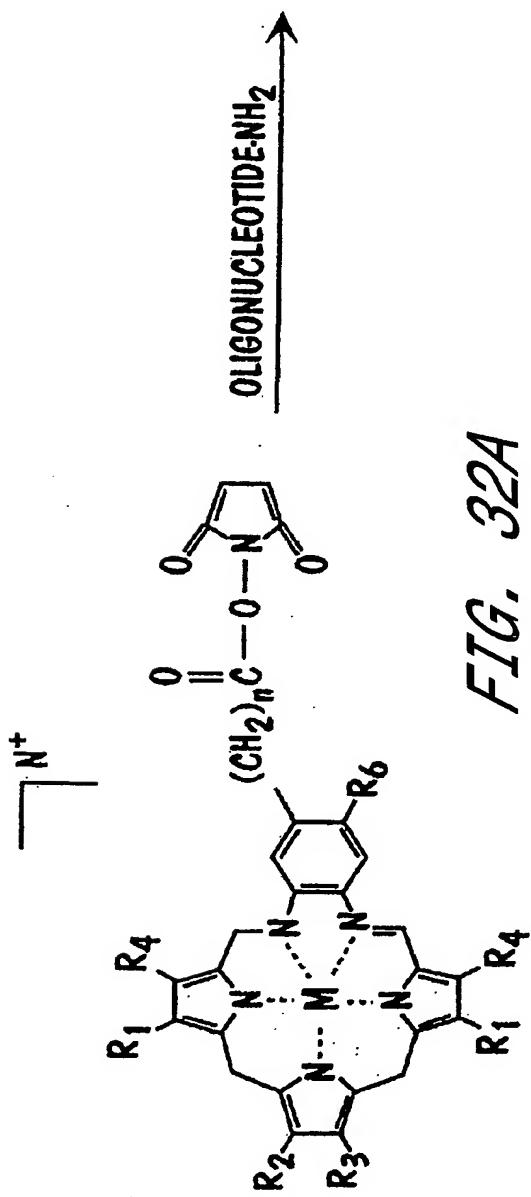


FIG. 32A

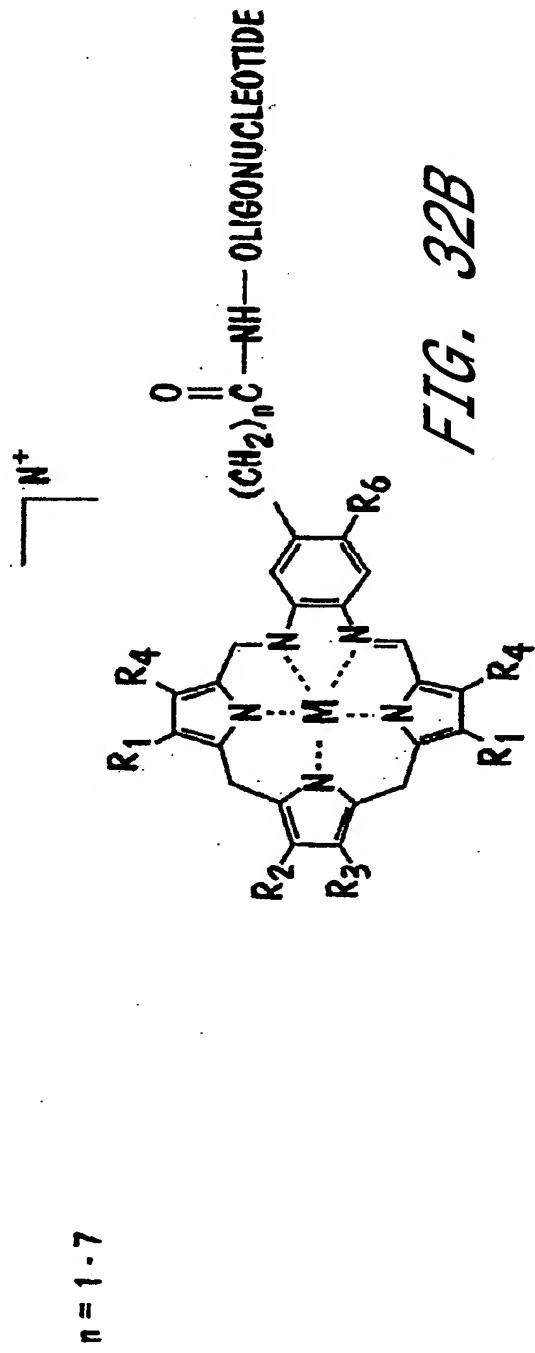
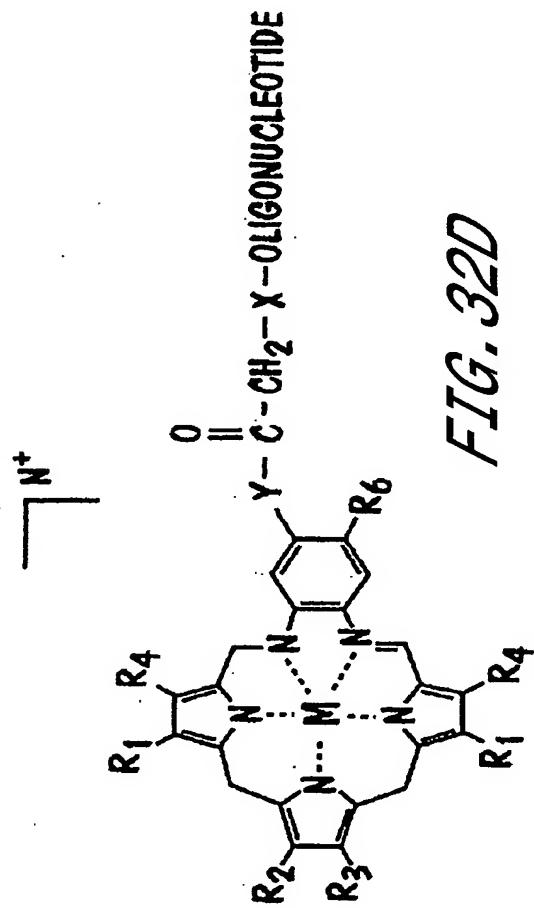
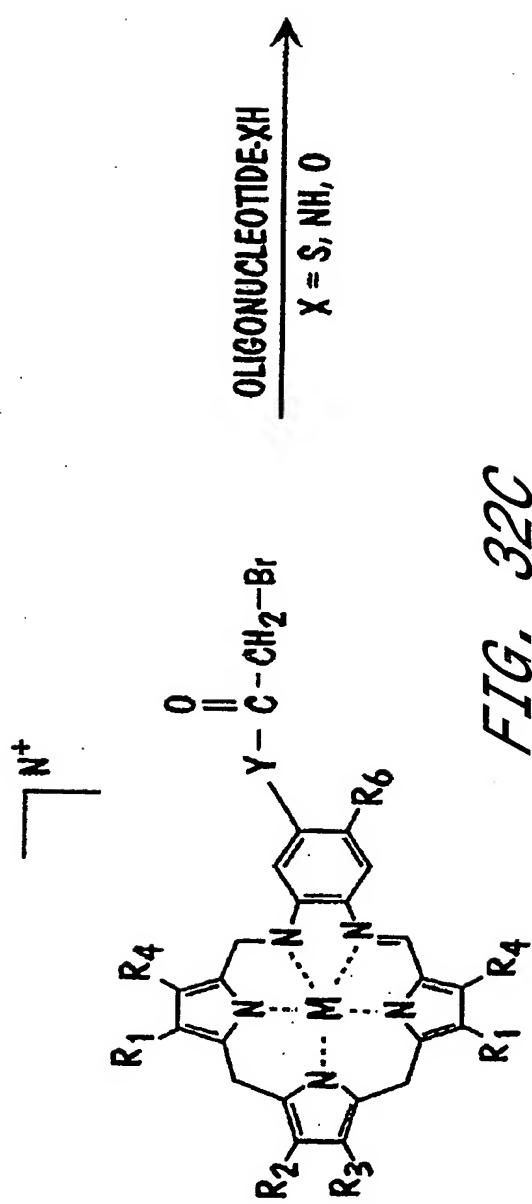
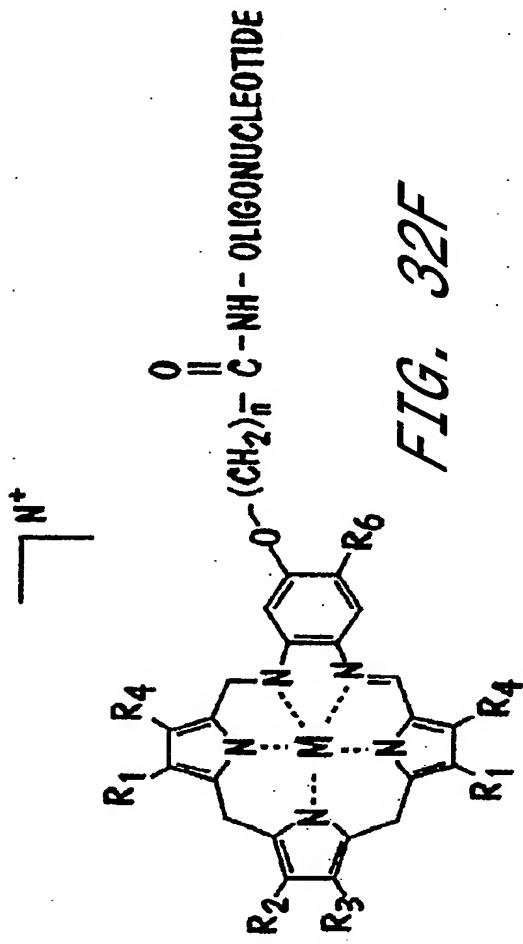
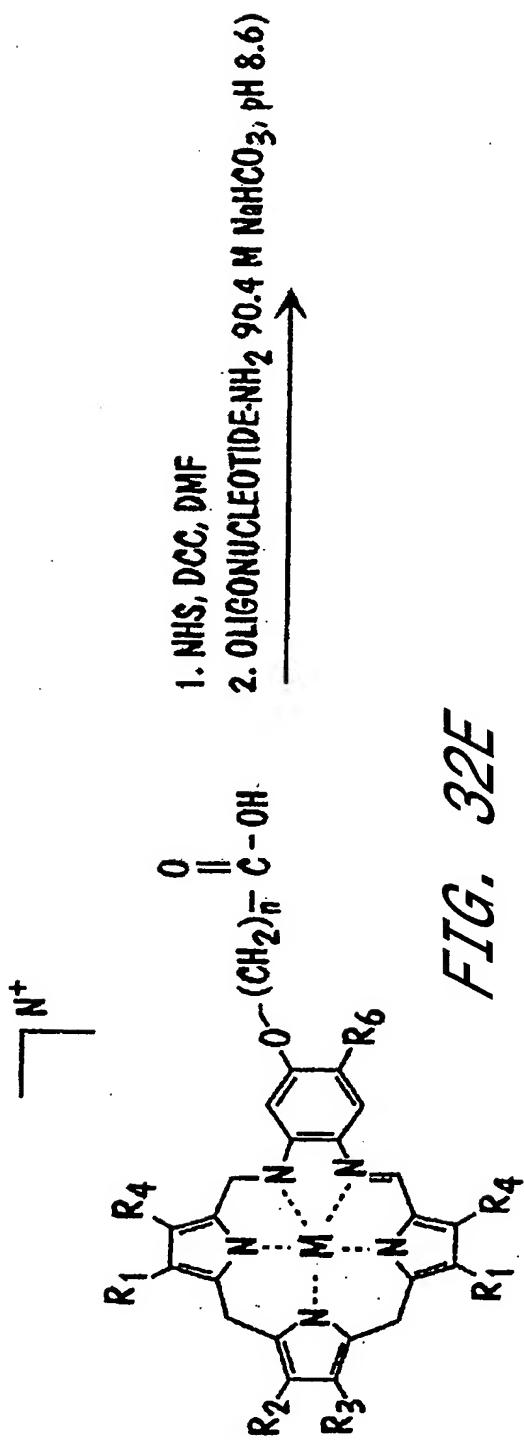


FIG. 32B



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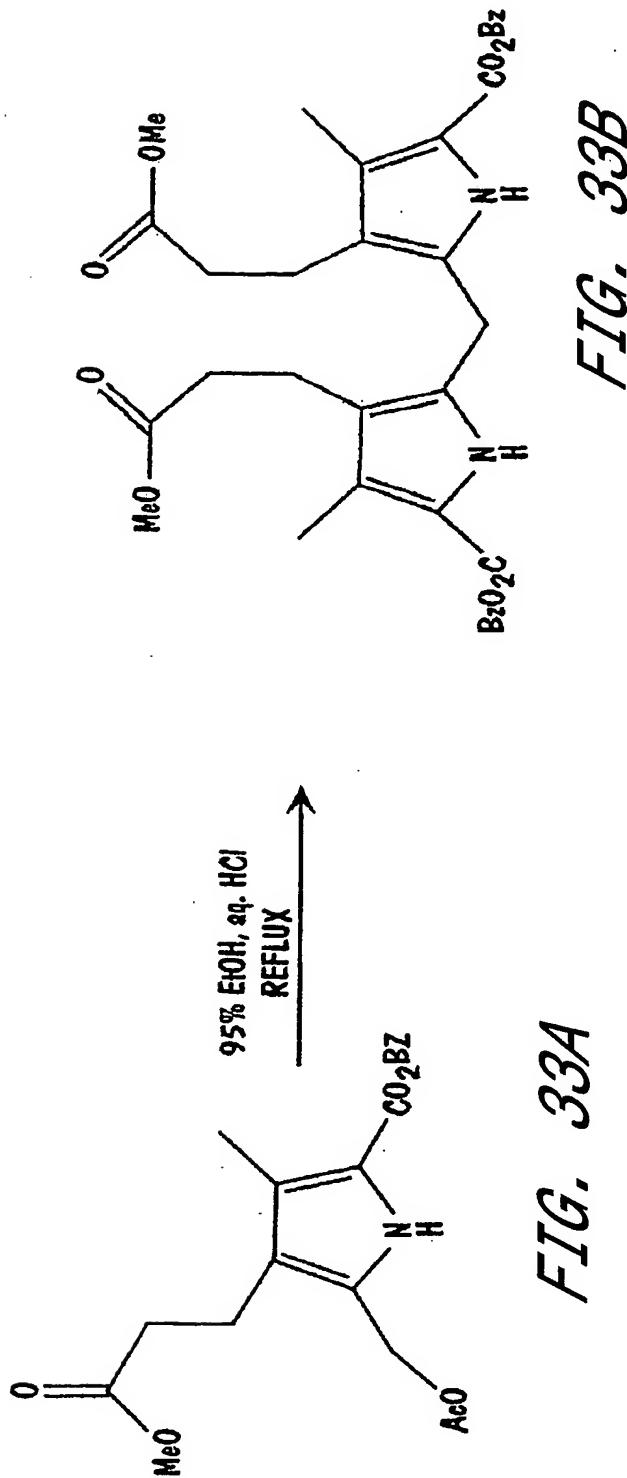


FIG. 33B

FIG. 33A

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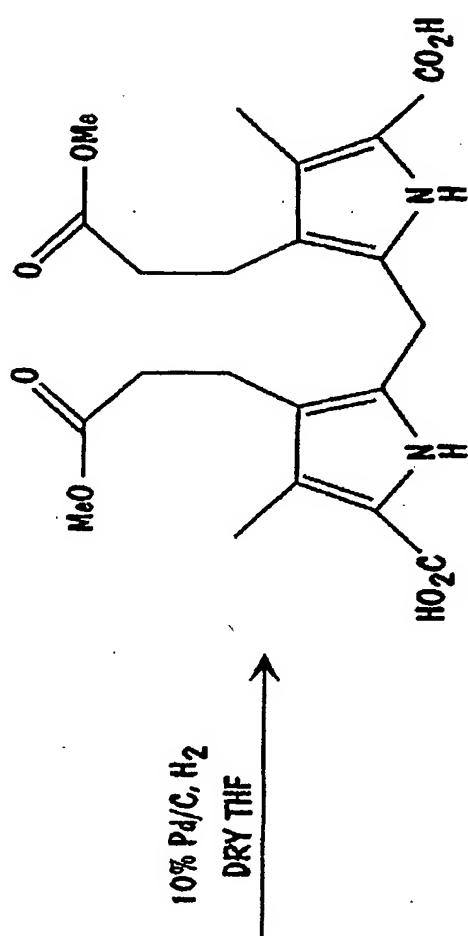


FIG. 33C

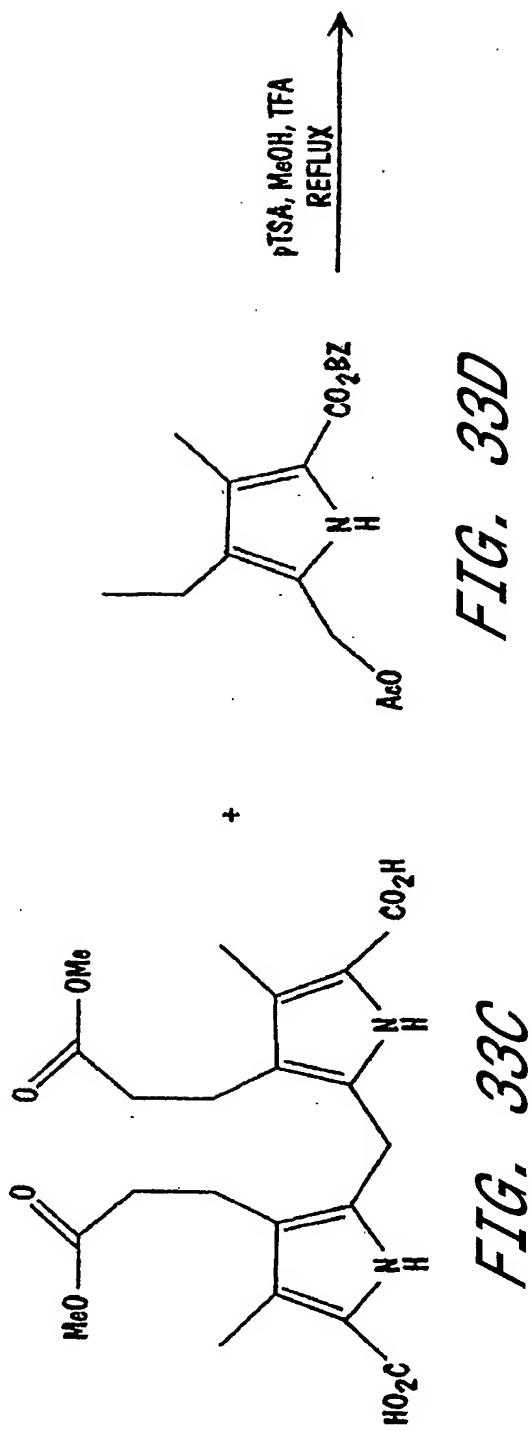


FIG. 33D

FIG. 33C

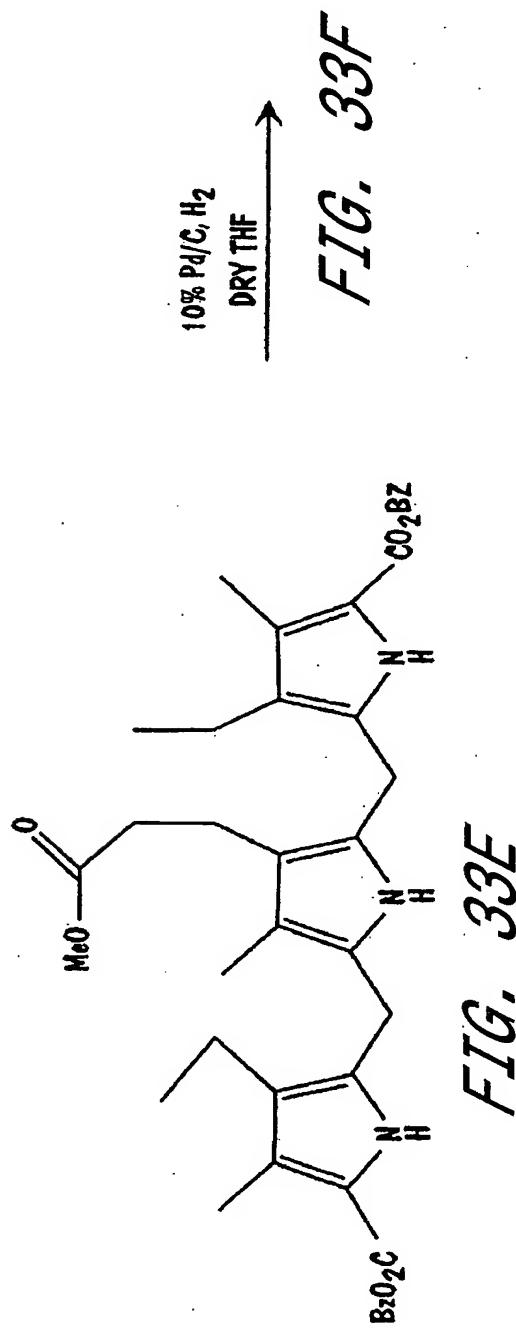


FIG. 33F

DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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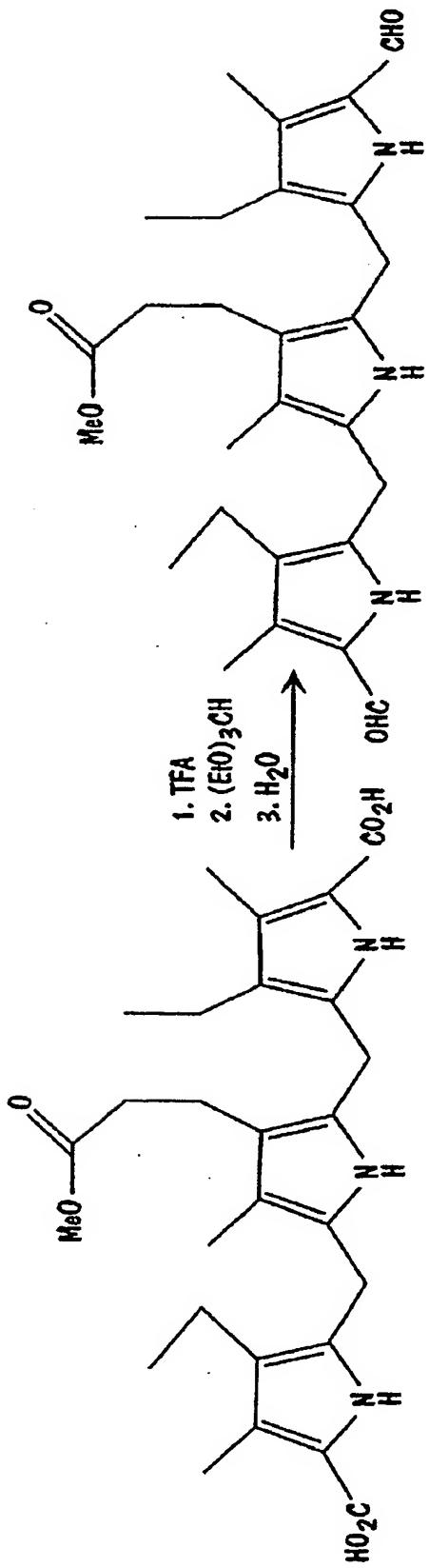


FIG. 33G

FIG. 33F

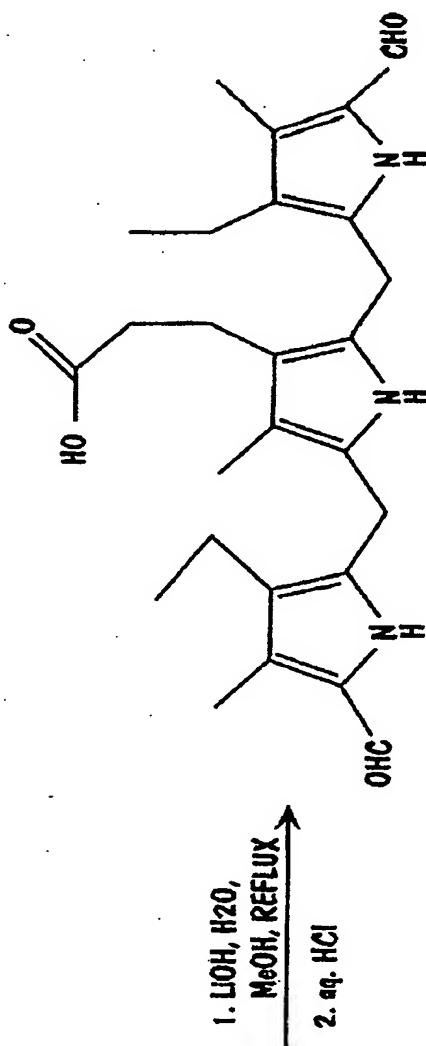
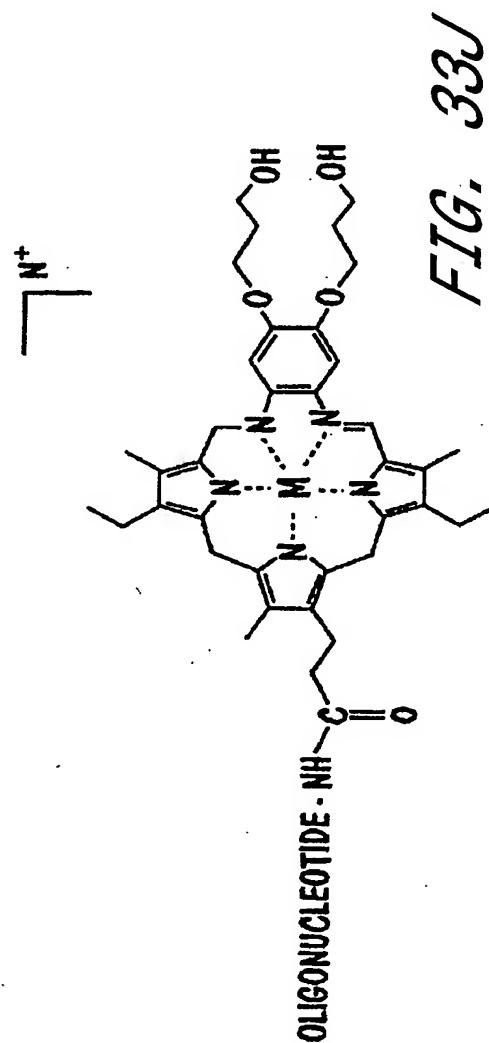
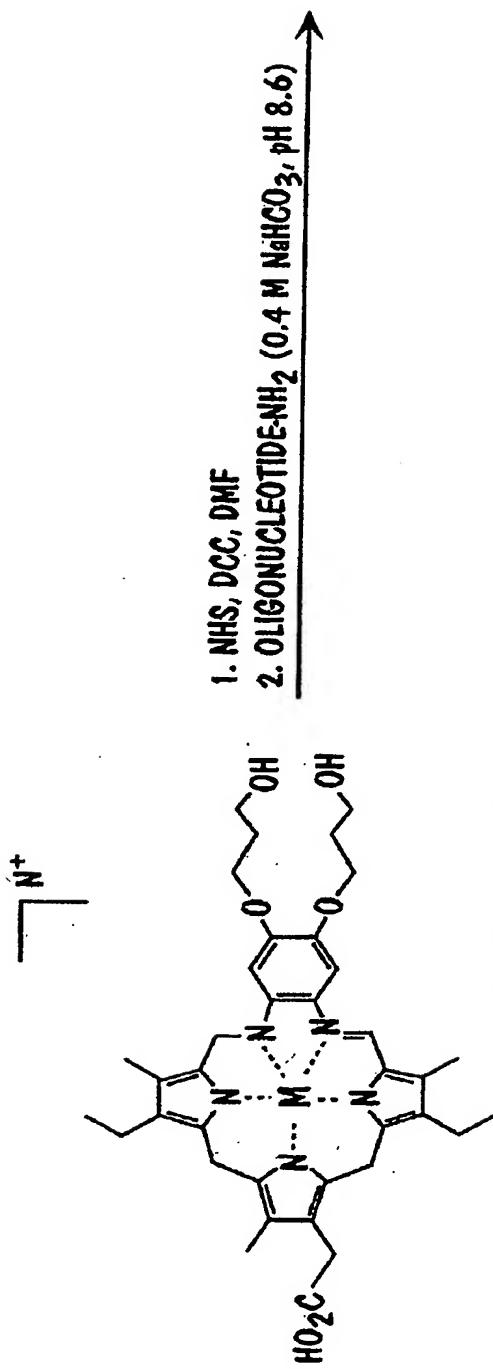


FIG. 33H



DELIVERY OF THERAPEUTIC COMPOSITIONS USING

ULTRASOUND

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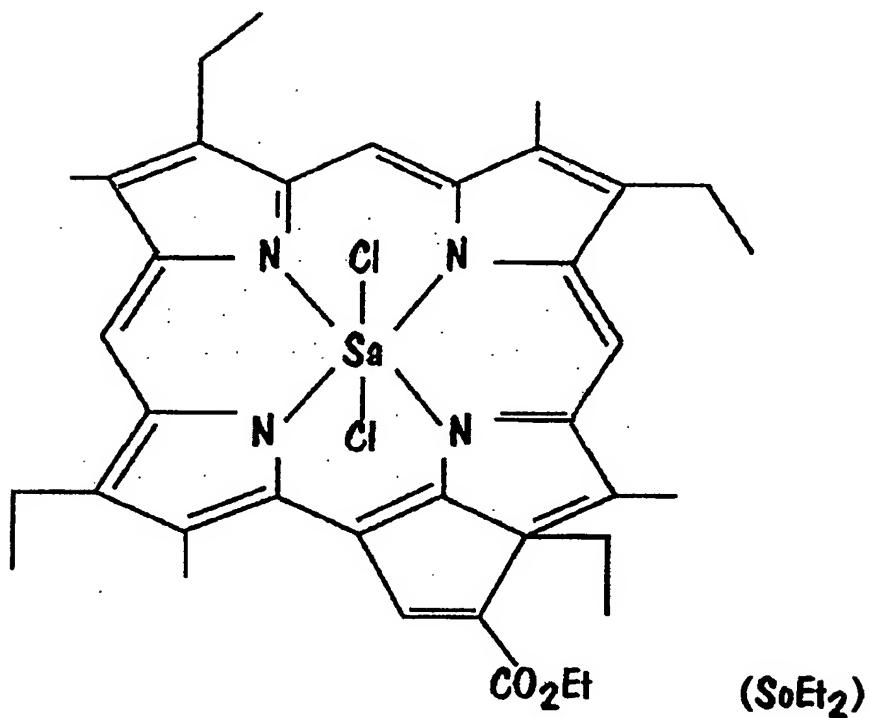


FIG. 34